

VRV 5 heat recovery Air Conditioning Technical Data REYA-A

REYA8A7Y1B
REYA10A7Y1B
REYA12A7Y1B
REYA14A7Y1B
REYA16A7Y1B
REYA18A7Y1B
REYA20A7Y1B
REYA10A7Y1B.
REYA13A7Y1B
REYA16A7Y1B.
REYA18A7Y1B.
REYA20A7Y1B.
REYA22A7Y1B
REYA24A7Y1B
REYA26A7Y1B
REYA28A7Y1B
REMA5A7Y1B



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1 Features

1 - 1 REYA-A

The sustainability champion

- › "Free" heating provided by transferring heat from areas requiring cooling to areas requiring heating
- › Reduced CO2 equivalent thanks to the use of lower GWP R-32 refrigerant and lower refrigerant charge
- › Top sustainability over the entire lifecycle, thanks to market leading real-life seasonal efficiency
- › Tackle small room applications without any additional measures, thanks to Shirodo technology
- › Specially designed indoor units for R-32, ensuring low sound and maximum efficiency
- › The perfect personal comfort for guests/tenants via simultaneous cooling and heating
- › Incorporates VRV standards & technologies: Variable Refrigerant Temperature, continuous heating, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor

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Variable refrigerant temperature



2 Specifications

2 - 1 Specifications

Technical Specifications				REYA8A	REYA10A	REYA12A	REYA14A
Recommended combination				4 x FXFA50A2VEB	4 x FXFA63A2VEB	6 x FXFA50A2VEB	1 x FXFA50A2VEB + 5 x FXFA63A2VEB
Recommended combination 2				4 x FXSA50A2VEB	4 x FXSA63A2VEB	6 x FXSA50A2VEB	1 x FXSA50A2VEB + 5 x FXSA63A2VEB
Recommended combination 3				4 x FXMA50A5VEB	4 x FXMA63A5VEB	6 x FXMA50A5VEB	1 x FXMA50A5VEB + 5 x FXMA63A5VEB
Cooling capacity	Prated,c		kW	22.4 (1)	28.0 (1)	33.5 (1)	40.0 (1)
Heating capacity	Nom.	6°CWB	kW	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)
	Prated,h		kW	22.4 (2)	28.0 (2)	33.5 (2)	40.0 (2)
	Max.	6°CWB	kW	25.0 (2)	31.5 (2)	37.5 (2)	45.0 (2)
COP at nom. capacity	6°CWB		kW/kW	3.83 (2)	3.45 (2)	3.46 (2)	3.57 (2)
SCOP				4.11	4.33	4.49	4.28
SCOP recommended combination 2				4.10	4.34	4.56	4.33
SCOP recommended combination 3				4.15	4.40	4.56	4.33
SEER				7.35	7.14	7.21	7.73
SEER recommended combination 2				7.07	6.87	6.90	7.53
SEER recommended combination 3				7.49	7.15	7.41	7.78
ηs,c				%	290.8	282.6	285.3
ηs,c recommended combination 2				%	279.6	271.7	273.2
ηs,c recommended combination 3				%	296.5	283.1	293.4
ηs,h				%	161.5	170.2	176.4
ηs,h recommended combination 2				%	161.1	170.4	179.5
ηs,h recommended combination 3				%	163.2	172.9	179.5
Space cooling	A Condition	EERd		3.25	3.26	3.24	3.26
	(35°C - 27/19)	Pdc	kW	22.4	28.0	33.5	40.0
	B Condition	EERd		5.23	5.00	4.60	4.92
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5
	C Condition	EERd		9.11	8.50	8.45	8.74
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	18.9
	D Condition	EERd		15.3	14.8	17.7	22.5
	(20°C - 27/19)	Pdc	kW	8.13	8.19	8.57	10.9
Space cooling recommended combination 2	A Condition	EERd		3.23		3.00	3.23
	(35°C - 27/19)	Pdc	kW	22.4	28.0	33.5	40.0
	B Condition	EERd		5.09	4.83	4.54	4.85
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5
	C Condition	EERd		8.55	8.06	7.94	8.38
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	18.9
	D Condition	EERd		14.6	14.1	16.9	21.7
	(20°C - 27/19)	Pdc	kW	7.84	7.97	8.20	10.6
Space cooling recommended combination 3	A Condition	EERd		3.22	3.27	3.23	3.30
	(35°C - 27/19)	Pdc	kW	22.4	28.0	33.5	40.0
	B Condition	EERd		5.31	4.91	4.69	4.93
	(30°C - 27/19)	Pdc	kW	16.5	20.6	24.7	29.5
	C Condition	EERd		9.41	8.59	8.82	8.84
	(25°C - 27/19)	Pdc	kW	10.6	13.3	15.9	18.9
	D Condition	EERd		15.7	15.1	18.5	22.4
	(20°C - 27/19)	Pdc	kW	8.19	8.13	8.50	10.9
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.80	2.28	2.38	2.57
		PdH (declared heating cap)		13.7	16.0	18.4	20.6
		Tbiv (bivalent temperature)		-10			
	TOL	COPd (declared COP)		2.80	2.28	2.38	2.57
		PdH (declared heating cap)		13.7	16.0	18.4	20.6
		Tol (temperature operating limit)		-10			
	A Condition	COPd (declared COP)		3.06	2.67	2.84	2.94
		PdH (declared heating cap)		12.1	14.2	16.3	18.2
	B Condition	COPd (declared COP)		3.81	4.23	4.15	3.86
		PdH (declared heating cap)		7.38	8.62	9.89	11.1
	C Condition	COPd (declared COP)		5.27	5.70	6.32	6.31
		PdH (declared heating cap)		4.76	5.54	6.36	7.13
	D Condition	COPd (declared COP)		7.04	7.92	9.14	6.68
		PdH (declared heating cap)		4.51	5.46	5.52	5.15

2 Specifications

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Technical Specifications					REYA8A		REYA10A		REYA12A		REYA14A			
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)			3.00		2.62		2.83		2.95			
		Pdh (declared heating cap) kW			12.1		14.2		16.3		18.2			
	B Condition (2°C)	COPd (declared COP)			3.80		4.24		4.26		3.89			
		Pdh (declared heating cap) kW			7.45		8.61		9.89		11.1			
	C Condition (7°C)	COPd (declared COP)			5.35		5.79		6.39		6.45			
		Pdh (declared heating cap) kW			4.76		5.54		6.36		7.14			
	D Condition (12°C)	COPd (declared COP)			7.04		7.91		9.39		6.94			
		Pdh (declared heating cap) kW			4.71		5.60		5.80		5.33			
	TBivalent	COPd (declared COP)			2.73		2.32		2.38		2.58			
		Pdh (declared heating cap) kW			13.7		16.0		18.4		20.6			
		Tbiv (bivalent temperature) °C			-10									
	TOL	COPd (declared COP)			2.73		2.32		2.38		2.58			
Pdh (declared heating cap) kW			13.7		16.0		18.4		20.6					
Tol (temperature operating limit) °C			-10											
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			3.05		2.68		2.85		2.96			
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	Pdh (declared heating cap) kW			12.1		14.2		16.3		18.2			
		COPd (declared COP)			3.86		4.32		4.24		3.89			
	B Condition (2°C)	Pdh (declared heating cap) kW			7.39		8.62		9.89		11.1			
		COPd (declared COP)			5.35		5.80		6.43					
	C Condition (7°C)	Pdh (declared heating cap) kW			4.75		5.55		6.36		7.15			
		COPd (declared COP)			7.14		8.02		9.37		6.84			
	D Condition (12°C)	Pdh (declared heating cap) kW			4.65		5.56		5.67		5.29			
		COPd (declared COP)			2.78		2.29		2.41		2.58			
	TBivalent	Pdh (declared heating cap) kW			13.7		16.0		18.4		20.6			
		Tbiv (bivalent temperature) °C			-10									
		COPd (declared COP)			2.78		2.29		2.41		2.58			
	TOL	Pdh (declared heating cap) kW			13.7		16.0		18.4		20.6			
Tol (temperature operating limit) °C			-10											
Capacity range		HP			8		10		12		14			
PED	Category				Category III									
	Most critical part	Name			Liquid receiver									
		Ps*V	Bar*I		508							612		
Maximum number of connectable indoor units					64 (3)									
Indoor index connection	Min.				100		125		150		175			
	Max.				260		325		390		455			
Dimensions	Unit	Height mm			1,685									
		Width mm			930									
		Depth mm			765									
	Packed unit	Height mm			1,820									
		Width mm			995							1,305		
		Depth mm			860									
Weight	Unit kg			213								296		
	Packed unit kg			224								309		
Packing	Material				Carton									
	Weight kg			1.5								1.8		
Packing 2	Material				Wood									
	Weight kg			8.9								11.0		
Packing 3	Material				Plastic									
	Weight kg			0.6								0.7		
Casing	Colour				Daikin White									
	Material				Painted galvanized steel plate									
Heat exchanger	Type				Cross fin coil									
Heat exchanger	Indoor side				Air									
	Outdoor side				Air									
	Air flow rate	Cooling	Rated	m³/h	9,145	9,709	10,823	11,576						
		Heating	Rated	m³/h	9,145	9,709	10,823	13,124						
Fan	Quantity				1								2	
	External static pressure	Max.	Pa		78									
Fan motor	Quantity				1								2	
	Type				DC motor									
Compressor	Output			W	550								750	
	Quantity				1									
Compressor	Type				Hermetically sealed scroll compressor									
	Crankcase heater			W	33									
	Operation range	Cooling	Min.	°CDB		-5								
Max.			°CDB		46									
Heating		Min.	°CWB		-20									
		Max.	°CWB		16									

2 Specifications

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Technical Specifications					REYA8A	REYA10A	REYA12A	REYA14A
Sound power level	Cooling	Nom.		dBA	78.3 (4)	78.8 (4)	82.5 (4)	78.7 (4)
	Heating	Nom.		dBA	79.4 (4)	80.7 (4)	83.3 (4)	82.9 (4)
Sound pressure level	Cooling	Nom.		dBA	56.3 (5)	58.0 (5)	60.8 (5)	58.1 (5)
	Heating			dBA	58.1 (5)	58.8 (5)	61.9 (5)	61.3 (5)
Refrigerant	Type				R-32			
	GWP				675.0			
	Charge			kg	9.00			10.6
	Charge			tCO2Eq	6.08			7.16
Refrigerant oil	Type				FW68DE			
Piping connections	Liquid	Type				Braze connection		
		OD		mm	9.52	12.70		
	Gas	Type				Braze connection		
		OD		mm	19.1	22.2		
	HP/LP gas	Type				Braze connection		
		OD		mm	15.90	19.10		
	Total piping length	System	Actual	m	1,000 (6)			
Defrost method					Reversed cycle			
Capacity control	Method				Inverter controlled			
Indication if the heater is equipped with a supplementary heater					No			
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0			
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000			
Power consumption in other than active mode	Crankcase heater mode	Heating	PCK	kW	0.053			0.058
		Off mode	Cooling	POFF	kW	0.050		
	Standby mode	Heating	POFF	kW	0.053			0.058
		Cooling	PSB	kW	0.050			0.058
	Thermo-stat-off mode	Heating	PSB	kW	0.053			0.058
		Cooling	PTO	kW	0.001			
		Heating	PTO	kW	0.053			0.058
Cooling	Cdc (Degradation cooling)				0.25			
Heating	Cdh (Degradation heating)				0.25			
Safety devices	Item	01				High pressure switch		
		02				Fan driver overload protector		
		03				Inverter overload protector		

Technical Specifications				REYA16A	REYA18A	REYA20A
Recommended combination				4 x FXFA63A2VEB + 2 x FXFA80A2VEB	3 x FXFA50A2VEB + 5 x FXFA63A2VEB	8 x FXFA63A2VEB
Recommended combination 2				4 x FXSA63A2VEB + 2 x FXSA80A2VEB	3 x FXSA50A2VEB + 5 x FXSA63A2VEB	8 x FXSA63A2VEB
Recommended combination 3				4 x FXMA63A5VEB + 2 x FXMA80A5VEB	3 x FXMA50A5VEB + 5 x FXMA63A5VEB	8 x FXMA63A5VEB
Cooling capacity	Prated,c		kW	45.0 (1)	50.4 (1)	56.0 (1)
Heating capacity	Nom.	6°CWB	kW	45.0 (2)	50.4 (2)	56.0 (2)
	Prated,h		kW	45.0 (2)	50.4 (2)	56.0 (2)
	Max.	6°CWB	kW	50.0 (2)	56.5 (2)	63.0 (2)
COP at nom. capacity	6°CWB		kW/kW	3.52 (2)	3.66 (2)	3.37 (2)
SCOP				4.26	4.39	4.14
SCOP recommended combination 2				4.33		4.11
SCOP recommended combination 3				4.32	4.39	4.14
SEER				7.10	7.09	6.63
SEER recommended combination 2				7.01	6.94	6.57
SEER recommended combination 3				7.15	7.11	6.64
ηs,c		%		281.0	280.6	262.2
ηs,c recommended combination 2		%		277.4	274.8	259.6
ηs,c recommended combination 3		%		283.1	281.3	262.5
ηs,h		%		167.5	172.5	162.7
ηs,h recommended combination 2		%		170.2		161.4
ηs,h recommended combination 3		%		169.6	172.7	162.7
Space cooling	A Condition	EERd		3.23	2.73	2.57
	(35°C - 27/19)	Pdc	kW	45.0	50.4	56.0
	B Condition	EERd		4.58	4.47	4.42
	(30°C - 27/19)	Pdc	kW	33.2	37.1	41.3
	C Condition	EERd		8.25	8.15	7.70
	(25°C - 27/19)	Pdc	kW	21.3	23.9	26.5
	D Condition	EERd		16.7	20.7	15.8
	(20°C - 27/19)	Pdc	kW	11.1	12.0	11.6

2 Specifications

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Technical Specifications				REYA16A	REYA18A	REYA20A
Space cooling recommended combination 2	A Condition	EERd		3.06	2.64	2.52
	(35°C - 27/19)	Pdc	kW	45.0	50.4	56.0
	B Condition	EERd		4.64	4.43	4.41
	(30°C - 27/19)	Pdc	kW	33.2	37.1	41.3
	C Condition	EERd		8.11	7.87	7.41
Space cooling recommended combination 3	(25°C - 27/19)	Pdc	kW	21.3	23.9	26.5
	D Condition	EERd		16.5	20.0	16.6
	(20°C - 27/19)	Pdc	kW	10.8	11.6	11.9
	A Condition	EERd		3.04	2.66	2.50
	(35°C - 27/19)	Pdc	kW	45.0	50.4	56.0
Space heating (Average climate)	B Condition	EERd		4.64	4.49	4.41
	(30°C - 27/19)	Pdc	kW	33.2	37.1	41.3
	C Condition	EERd		8.50	8.22	7.71
	(25°C - 27/19)	Pdc	kW	21.3	23.9	26.5
	D Condition	EERd		16.7	20.9	16.4
Space heating (Average climate) recommended combination 2	(20°C - 27/19)	Pdc	kW	10.7	11.9	11.8
	TBivalent	COPd (declared COP)		2.53	2.36	2.23
		Pdh (declared heating cap)	kW	23.2	27.9	31.0
		Tbiv (bivalent temperature)	°C		-10	
	TOL	COPd (declared COP)		2.53	2.36	2.23
Space heating (Average climate) recommended combination 3		Pdh (declared heating cap)	kW	23.2	27.9	31.0
		Tol (temperature operating limit)	°C		-10	
	A Condition	COPd (declared COP)		2.87	2.70	2.60
	(-7°C)	Pdh (declared heating cap)	kW	20.5	24.7	27.4
	B Condition	COPd (declared COP)		3.93	4.19	3.84
Space heating (Average climate) recommended combination 3	(2°C)	Pdh (declared heating cap)	kW	12.5	15.0	16.7
	C Condition	COPd (declared COP)		6.21	6.22	5.89
	(7°C)	Pdh (declared heating cap)	kW	8.03	9.66	10.7
	D Condition	COPd (declared COP)		6.04	6.85	7.70
	(12°C)	Pdh (declared heating cap)	kW	5.07	6.24	7.34
Space heating (Average climate) recommended combination 3	A Condition	COPd (declared COP)		2.89	2.62	2.54
	(-7°C)	Pdh (declared heating cap)	kW	20.5	24.7	27.5
	B Condition	COPd (declared COP)		3.96	4.07	3.79
	(2°C)	Pdh (declared heating cap)	kW	12.5	15.0	16.7
	C Condition	COPd (declared COP)		6.41	6.19	5.98
Space heating (Average climate) recommended combination 3	(7°C)	Pdh (declared heating cap)	kW	8.04	9.65	10.7
	D Condition	COPd (declared COP)		6.47	8.15	7.81
	(12°C)	Pdh (declared heating cap)	kW	5.36	7.68	7.69
	TBivalent	COPd (declared COP)		2.54	2.28	2.18
		Pdh (declared heating cap)	kW	23.2	27.9	31.0
Space heating (Average climate) recommended combination 3		Tbiv (bivalent temperature)	°C		-10	
	TOL	COPd (declared COP)		2.54	2.28	2.18
		Pdh (declared heating cap)	kW	23.2	27.9	31.0
		Tol (temperature operating limit)	°C		-10	
	A Condition	COPd (declared COP)		2.88	2.73	2.60
Space heating (Average climate) recommended combination 3	(-7°C)	Pdh (declared heating cap)	kW	20.5	24.8	27.5
	B Condition	COPd (declared COP)		3.95	4.25	3.88
	(2°C)	Pdh (declared heating cap)	kW	12.5	15.0	16.7
	C Condition	COPd (declared COP)		6.34	6.39	6.07
	(7°C)	Pdh (declared heating cap)	kW	8.03	9.66	10.7
Space heating (Average climate) recommended combination 3	D Condition	COPd (declared COP)		6.44	5.48	6.15
	(12°C)	Pdh (declared heating cap)	kW	5.32	5.80	5.91
	TBivalent	COPd (declared COP)		2.54	2.39	2.24
		Pdh (declared heating cap)	kW	23.2	28.0	31.1
		Tbiv (bivalent temperature)	°C		-10	
Space heating (Average climate) recommended combination 3	TOL	COPd (declared COP)		2.54	2.39	2.24
		Pdh (declared heating cap)	kW	23.2	28.0	31.1
		Tol (temperature operating limit)	°C		-10	
	Capacity range	HP		16	18	20
	PED	Category		Category III		
Maximum number of connectable indoor units		Most critical part	Name	Liquid receiver		
		P _s *V	Bar*l	612	764	
		Indoor index connection	Min.	200	225	250
			Max.	520	585	650

2 Specifications

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Technical Specifications					REYA16A		REYA18A		REYA20A		
Dimensions	Unit	Height	mm		1,685						
		Width	mm		1,240						
		Depth	mm		765						
	Packed unit	Height	mm		1,820						
		Width	mm		1,305						
		Depth	mm		860						
Weight	Unit	kg		296		319					
	Packed unit	kg		309		332					
Packing	Material				Carton						
	Weight	kg			1.8						
Packing 2	Material				Wood						
	Weight	kg			11.0						
Packing 3	Material				Plastic						
	Weight	kg			0.7						
Casing	Colour				Daikin White						
	Material				Painted galvanized steel plate						
Heat exchanger	Type				Cross fin coil						
Heat exchanger	Indoor side				Air						
	Outdoor side				Air						
	Air flow rate	Cooling	Rated	m³/h	14,315		12,351		14,893		
		Heating	Rated	m³/h	14,315		12,351		14,893		
Fan	Quantity				2						
	External static pressure	Max.	Pa		78						
Fan motor	Quantity				2						
	Type				DC motor						
	Output	W			750						
Compressor	Quantity				1						
	Type				Hermetically sealed scroll compressor						
	Crankcase heater	W			33						
Operation range	Cooling	Min.	°CDB		-5						
		Max.	°CDB		46						
	Heating	Min.	°CWB		-20						
		Max.	°CWB		16						
Sound power level	Cooling	Nom.	dBA		83.7 (4)		83.4 (4)		87.9 (4)		
	Heating	Nom.	dBA		86.3 (4)		85.1 (4)		89.6 (4)		
Sound pressure level	Cooling	Nom.	dBA		61.4 (5)		63.0 (5)		67.0 (5)		
	Heating		dBA		64.5 (5)		64.0 (5)		68.0 (5)		
Refrigerant	Type				R-32						
	GWP				675.0						
	Charge	kg			10.6						
	Charge	tCO2Eq			7.16						
Refrigerant oil	Type				FW68DE						
Piping connections	Liquid	Type				Braze connection					
		OD	mm		12.70						
	Gas	Type				Braze connection					
		OD	mm		22.2				28.6		
	HP/LP gas	Type				Braze connection					
		OD	mm		19.10				22.20		
	Total piping length	System	Actual	m	1,000 (6)						
	Defrost method					Reversed cycle					
Capacity control	Method				Inverter controlled						
Indication if the heater is equipped with a supplementary heater					No						
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0						
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000						
Power consumption in other than active mode	Crankcase heater mode	Heating	PCK	kW	0.058						
	Off mode	Cooling	POFF	kW	0.058						
		Heating	POFF	kW	0.058						
	Standby mode	Cooling	PSB	kW	0.058						
		Heating	PSB	kW	0.058						
	Thermo-stat-off mode	Cooling	PTO	kW	0.001						
		Heating	PTO	kW	0.058						
Cooling	Cdc (Degradation cooling)				0.25						
Heating	Cdh (Degradation heating)				0.25						

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Technical Specifications			REYA16A	REYA18A	REYA20A
Safety devices	Item	01	High pressure switch		
		02	Fan driver overload protector		
		03	Inverter overload protector		

Standard accessories: Installation and operation manual;Quantity: 1;

Standard accessories: Connection pipes;Quantity: 1;

Electrical Specifications				REYA8A	REYA10A	REYA12A	REYA14A	
Power supply	Name			Y1				
	Phase			3N~				
	Frequency Hz			50				
	Voltage V			380-415				
Power supply intake				Both indoor and outdoor unit				
Voltage range	Min. %			-10				
	Max. %			10				
Current - 50Hz	Nominal running current (RLA)	Combina- tion A	Cooling	-				
		Combina- tion B	Cooling	-				
		Cooling	A	10.5 (8)	13.0 (8)	15.6 (8)	18.5 (8)	
	Starting current (MSC) - remark			See note 9				
	Zmax	List			No requirements			
	Minimum Ssc value kVa			2,789 (9)	3,810 (9)	4,157 (9)	4,676 (9)	
	Minimum circuit amps (MCA) A			16.1 (10)	22.0 (10)	24.0 (10)	27.0 (10)	
	Maximum fuse amps (MFA) A			20 (11)	25 (11)	32 (11)		
Power Performance	Power factor	Combina- tion B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
		Quantity		2				
	For connec- tion with indoor	Remark		F1,F2				
Compressor	Crankcase heater W			33				

Electrical Specifications				REYA16A	REYA18A	REYA20A
Power supply	Name			Y1		
	Phase			3N~		
	Frequency Hz			50		
	Voltage V			380-415		
Power supply intake				Both indoor and outdoor unit		
Voltage range	Min. %			-10		
	Max. %			10		
Current - 50Hz	Nominal running current (RLA)	Combina- tion A	Cooling	-		
		Combina- tion B	Cooling	-		
		Cooling	A	21.0 (8)	27.8 (8)	32.8 (8)
	Starting current (MSC) - remark			See note 9		
	Zmax List			No requirements		
	Minimum Ssc value kVa			5,369 (9)	6,062 (9)	7,274 (9)
	Minimum circuit amps (MCA) A			31.0 (10)	35.0 (10)	42.0 (10)
	Maximum fuse amps (MFA) A			40 (11)		50 (11)
Power Performance	Power factor	Combina- tion B	35°C ISO - Full load	-		
			46°C ISO - Full load	-		
Wiring connections - 50Hz	For power supply	Quantity		5G		
	For connec- tion with indoor	Quantity		2		
		Remark		F1,F2		
Compressor	Crankcase heater W			33		

(1)Cooling: indoor temp. 27°CDB; 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m |

(2)Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m |

(3)The actual number of units depends on the connection ratio (CR) and the restrictions for the system. |

(4)Air Flow Rate (AFR) of multi outdoor systems is sum of AFR of the individual systems it consists of |

(5)Sound power level is an absolute value that a sound source generates. |

(6)Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |

(7)Refer to refrigerant pipe selection or installation manual |

(8)RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |

(9)MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always ≤ max. running current. |

(10)In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Ssc ≥ minimum Ssc value |

(11)MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |

(12)MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |

(13)Maximum allowable voltage range variation between phases is 2%. |

(14)Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |

(15)Sound values are measured in a semi-anechoic room. |

(16)EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and ≤ 75A per phase |

2 Specifications

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(17)Ssc: Short-circuit power |

(18)For detailed contents of standard accessories, see installation/operation manual |

(19)Multi combination (10~28HP) data is corresponding with the standard multi combination

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Technical specifications System				REYA10A	REYA13A	REYA16A	REYA18A	REYA20A
System	Outdoor unit module 1			REMA5A		REYA8A		
	Outdoor unit module 2			REMA5A	REYA8A		REYA10A	REYA12A
Recommended combination				4 x FXFA63A2VEB	3 x FXFA50A2VEB + 3 x FXFA63A2VEB	4 x FXFA63A2VEB + 2 x FXFA80A2VEB	4 x FXFA50A2VEB + 4 x FXFA63A2VEB	10 x FXFA50A2VEB
Recommended combination 2				4 x FXSA63A2VEB	3 x FXSA50A2VEB + 3 x FXSA63A2VEB	4 x FXSA63A2VEB + 2 x FXSA80A2VEB	4 x FXSA50A2VEB + 4 x FXSA63A2VEB	10 x FXSA50A2VEB
Recommended combination 3				4 x FXMA63A5VEB	3 x FXMA50A5VEB + 3 x FXMA50A5VEB	4 x FXMA63A5VEB + 2 x FXMA80A5VEB	4 x FXMA50A5VEB + 4 x FXMA63A5VEB	10 x FXMA50A5VEB
Continuous heating				Yes				
Cooling capacity	Prated,c		kW	28.0 (1)	36.4 (1)	44.8 (1)	50.4 (1)	55.9 (1)
Heating capacity	Nom.	6°CWB	kW	28.0 (2)	36.4 (2)	44.8 (2)	50.4 (2)	55.9 (2)
	Prated,h		kW	28.0 (2)	36.4 (2)	44.8 (2)	50.4 (2)	55.9 (2)
	Max.	6°CWB	kW	32.0 (2)	41.0 (2)	50.0 (2)	56.5 (2)	62.5 (2)
COP at nom. capacity	6°CWB		kW/kW	3.66 (2)	3.76 (2)	3.72 (2)	3.61 (2)	3.60 (2)
SCOP				4.09	4.11	4.35	4.34	4.38
SCOP recommended combination 2				4.14	4.19	4.38	4.40	4.48
SCOP recommended combination 3				4.16	4.22	4.37	4.46	4.50
SEER				7.62	7.49	7.40	7.26	7.27
SEER recommended combination 2				7.30	7.15	6.93	6.95	6.94
SEER recommended combination 3				7.61	7.57	7.31	7.30	7.48
ηs,c				%	301.9	296.5	293.0	287.5
ηs,c recommended combination 2				%	289.0	282.9	274.2	275.2
ηs,c recommended combination 3				%	301.2	299.8	289.4	288.9
ηs,h				%	160.6	161.5	170.9	170.5
ηs,h recommended combination 2				%	162.5	164.8	172.2	173.2
ηs,h recommended combination 3				%	163.4	165.8	171.8	175.4
Space cooling	A Condition	EERd		3.81	3.46	3.25	3.26	3.24
	(35°C - 27/19)	Pdc	kW	28.0	36.4	44.8	50.4	55.9
	B Condition	EERd		7.73	6.08	5.41	5.18	4.89
	(30°C - 27/19)	Pdc	kW	20.6	26.8	33.0	37.1	41.2
	C Condition	EERd		8.99	9.04	9.11	8.76	8.70
	(25°C - 27/19)	Pdc	kW	13.5	18.0	21.2	23.9	26.5
	D Condition	EERd		11.5	13.9	15.0		16.4
	(20°C - 27/19)	Pdc	kW	14.1	15.5	15.9	16.3	16.7
Space cooling recom- mended combination 2	A Condition	EERd		3.67	3.36	3.14	3.23	3.09
	(35°C - 27/19)	Pdc	kW	28.0	36.4	44.8	50.4	55.9
	B Condition	EERd		7.32	5.78	5.00	4.94	4.75
	(30°C - 27/19)	Pdc	kW	20.6	26.8	33.0	37.1	41.2
	C Condition	EERd		8.54	8.53	8.36	8.27	8.17
	(25°C - 27/19)							
Space cooling recom- mended combination 2	C Condition	Pdc	kW	13.3	17.8	21.2	23.9	26.5
	(25°C - 27/19)							
	D Condition	EERd		11.1	13.3	14.3		15.7
	(20°C - 27/19)	Pdc	kW	13.7	15.0	15.5	15.8	16.0
Space cooling recom- mended combination 3	A Condition	EERd		3.71	3.41	3.18	3.25	3.27
	(35°C - 27/19)	Pdc	kW	28.0	36.4	44.8	50.4	55.9
	B Condition	EERd		7.71	6.12	5.24	5.08	5.04
	(30°C - 27/19)	Pdc	kW	20.6	26.8	33.0	37.1	41.2
	C Condition	EERd		8.99	9.22	9.04	8.94	9.03
	(25°C - 27/19)	Pdc	kW	13.5	18.1	21.2	23.9	26.5
	D Condition	EERd		11.6	14.2	15.2	15.4	16.9
	(20°C - 27/19)	Pdc	kW	14.1	15.5	16.0	16.3	16.7
	TOL	COPd (declared COP)		2.69	2.74	2.87	2.51	2.55
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.69	2.74	2.87	2.51	2.55
		Pdh (declared heating cap)	kW	16.0	21.7	23.2	27.9	31.0
		Tbiv (bivalent temperature)	°C	-10				
	TOL	COPd (declared COP)		2.69	2.74	2.87	2.51	2.55
		Pdh (declared heating cap)	kW	16.0	21.7	23.2	27.9	31.0
		Tol (temperature operating limit)	°C	-10				
	A Condition	COPd (declared COP)		3.00	3.03	3.18	2.87	2.95
		Pdh (declared heating cap)	kW	14.2	19.2	20.5	24.7	27.4
		(-7°C)		4.37	4.02	4.17	4.20	4.09
	B Condition	COPd (declared COP)		8.60	11.7	12.5	15.0	16.7
		Pdh (declared heating cap)	kW	4.70	5.11	5.45	5.60	5.90
		(2°C)		7.17	8.40	8.05	9.66	10.7
	C Condition	COPd (declared COP)		5.57	6.47	6.93	7.49	8.06
		Pdh (declared heating cap)	kW	8.74	8.93	9.04	9.97	10.0
		(12°C)						

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Technical specifications System					REYA10A	REYA13A	REYA16A	REYA18A	REYA20A	
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)			3.02	3.05	3.18	2.86	2.96	
		Pdh (declared heating cap)	kW		14.2	19.2	20.5	24.7	27.4	
	B Condition (2°C)	COPd (declared COP)			4.43	4.12	4.18	4.27	4.21	
		Pdh (declared heating cap)	kW		8.64	11.7	12.5	15.0	16.7	
	C Condition (7°C)	COPd (declared COP)			4.76	5.24	5.57	5.78	6.07	
		Pdh (declared heating cap)	kW		7.31	8.54	8.08	9.65	10.7	
	D Condition (12°C)	COPd (declared COP)			5.62	6.58	6.97	7.59	8.30	
		Pdh (declared heating cap)	kW		8.87	9.17	9.24	10.3	10.5	
	TBivalent	COPd (declared COP)			2.70	2.26	2.38	2.27	2.34	
		Pdh (declared heating cap)			16.0	21.7	23.2	27.9	31.0	
Tbiv (bivalent temperature)			°C		-10					
	TOL	COPd (declared COP)			2.70	2.26	2.38	2.27	2.34	
Space heating (Average climate) recommended combination 2	TOL	Pdh (declared heating cap)			16.0	21.7	23.2	27.9	31.0	
		Tol (temperature operating limit)			°C		-10			
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			3.03	3.07	3.17	2.91	2.99	
		Pdh (declared heating cap)	kW		14.2	19.2	20.5	24.7	27.5	
	B Condition (2°C)	COPd (declared COP)			4.48	4.14	4.19	4.35	4.22	
		Pdh (declared heating cap)	kW		8.61	11.7	12.5	15.0	16.7	
	C Condition (7°C)	COPd (declared COP)			4.76	5.25	5.52	5.77	6.07	
		Pdh (declared heating cap)	kW		7.28	8.49	8.04	9.67	10.7	
	D Condition (12°C)	COPd (declared COP)			5.62	6.64	6.94	7.69	8.32	
		Pdh (declared heating cap)	kW		8.85	9.13	9.17	10.2	10.3	
	TBivalent	COPd (declared COP)			2.71	2.78	2.86	2.53	2.59	
		Pdh (declared heating cap)			16.0	21.7	23.2	27.9	31.0	
		Tbiv (bivalent temperature)			°C		-10			
		TOL	COPd (declared COP)			2.71	2.78	2.86	2.53	2.59
			Pdh (declared heating cap)			16.0	21.7	23.2	27.9	31.0
		Tol (temperature operating limit)			°C		-10			
Capacity range					HP	10	13	16	18	20
PED	Category				Category III					
Maximum number of connectable indoor units					64 (3)					
Indoor index connection	Min.				125	163	200	225	250	
	Max.				325	423	520	585	650	
Heat exchanger	Indoor side				Air					
	Outdoor side				Air					
	Air flow rate	Cooling	Rated	m³/h	18,290 (11)			18,854 (11)	19,968 (11)	
		Heating	Rated	m³/h	18,290 (11)			18,854 (11)	19,968 (11)	
Sound power level	Cooling	Nom.	dBA		81.3 (4)			81.6 (4)	83.9 (4)	
	Heating	Nom.	dBA		82.4 (4)			83.1 (4)	84.8 (4)	
Sound pressure level	Cooling	Nom.	dBA		59.3 (5)			60.2 (5)	62.1 (5)	
	Heating		dBA		61.1 (5)			61.5 (5)	63.4 (5)	
Refrigerant	Type				R-32					
	GWP				675.0					
Refrigerant oil	Type				FW68DE					
Piping connections	Liquid	Type				Braze connection				
		OD	mm		9.52	12.70				
	Gas	Type				Braze connection				
		OD	mm		19.1					22.2
Piping connections	HP/LP gas	Type			Braze connection					
	HP/LP gas	OD	mm		15.90	19.10			22.20	
	Total piping length	System	Actual	m	500 (6)					
Defrost method					Reversed cycle					
Capacity control	Method				Inverter controlled					
Indication if the heater is equipped with a supplementary heater					No					
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0					
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000					
		Heating	PCK	kW	0.106					
	Off mode	Cooling	POFF	kW	0.100					
		Heating	POFF	kW	0.106					
	Standby mode	Cooling	PSB	kW	0.100					
		Heating	PSB	kW	0.106					
	Thermo-stat-off mode	Cooling	PTO	kW	0.002					
		Heating	PTO	kW	0.106					
	Cooling	Cdc (Degradation cooling)				0.25				
Heating	Cdh (Degradation heating)				0.25					

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Technical specifications System				REYA22A		REYA24A		REYA26A		REYA28A	
System	Outdoor unit module 1			REYA10A		REYA8A		REYA12A			
	Outdoor unit module 2			REYA12A		REYA16A		REYA14A		REYA16A	
Recommended combination				6 x FXFA50A2VEB + 4 x FXFA63A2VEB		4 x FXFA50A2VEB + 4 x FXFA63A2VEB + 2 x FXFA80A2VEB		7 x FXFA50A2VEB + 5 x FXFA63A2VEB		6 x FXFA50A2VEB + 4 x FXFA63A2VEB + 2 x FXFA80A2VEB	
Recommended combination 2				6 x FXSA50A2VEB + 4 x FXSA63A2VEB		4 x FXSA50A2VEB + 4 x FXSA63A2VEB + 2 x FXSA80A2VEB		7 x FXSA50A2VEB + 5 x FXSA63A2VEB		6 x FXSA50A2VEB + 4 x FXSA63A2VEB + 2 x FXSA80A2VEB	
Recommended combination 3				6 x FXMA50A5VEB + 4 x FXMA63A5VEB		4 x FXMA50A5VEB + 4 x FXMA63A5VEB + 2 x FXMA80A5VEB		7 x FXMA50A5VEB + 5 x FXMA63A5VEB		6 x FXMA50A5VEB + 4 x FXMA63A5VEB + 2 x FXMA80A5VEB	
Continuous heating				Yes							
Cooling capacity		Prated,c	kW	61.5 (1)		67.4 (1)		73.5 (1)		78.5 (1)	
Heating capacity	Nom.	6°CWB	kW	61.5 (2)		67.4 (2)		73.5 (2)		78.5 (2)	
	Prated,h		kW	61.5 (2)		67.4 (2)		73.5 (2)		78.5 (2)	
	Max.	6°CWB	kW	69.0 (2)		75.0 (2)		82.5 (2)		87.5 (2)	
COP at nom. capacity	6°CWB		kW/kW	3.46 (2)		3.62 (2)		3.52 (2)		3.49 (2)	
SCOP				4.41		4.20		4.38		4.36	
SCOP recommended combination 2				4.45		4.24		4.44		4.43	
SCOP recommended combination 3				4.48		4.25		4.44		4.43	
SEER				7.17		7.16		7.48		7.15	
SEER recommended combination 2				6.88		7.01		7.23		6.96	
SEER recommended combination 3				7.28		7.29		7.61		7.26	
ηs,c				283.6		283.4		296.2		282.8	
ηs,c recommended combination 2				272.1		277.3		286.4		275.6	
ηs,c recommended combination 3				288.2		288.7		301.3		287.4	
ηs,h				173.3		165.2		172.0		171.5	
ηs,h recommended combination 2				175.1		166.6		174.4		174.3	
ηs,h recommended combination 3				176.3		167.1		174.5		174.0	
Space cooling	A Condition	EERd		3.25		3.24		3.25		3.23	
	(35°C - 27/19)	Pdc	kW	61.5		67.4		73.5		78.5	
	B Condition	EERd		4.78				4.77		4.59	
	(30°C - 27/19)	Pdc	kW	45.3		49.7		54.2		57.8	
	C Condition	EERd		8.47		8.52		8.61		8.33	
	(25°C - 27/19)	Pdc	kW	29.1		31.9		34.8		37.2	
	D Condition	EERd		16.2		16.0		20.1		17.1	
	(20°C - 27/19)	Pdc	kW	16.8		19.2		19.5		19.7	
Space cooling recom- mended combination 2	A Condition	EERd		3.10		3.11		3.12		3.03	
	(35°C - 27/19)	Pdc	kW	61.5		67.4		73.5		78.5	
	B Condition	EERd		4.67		4.78		4.71		4.60	
	(30°C - 27/19)	Pdc	kW	45.3		49.7		54.2		57.8	
Space cooling recom- mended combination 2	C Condition	EERd		8.00		8.25		8.17		8.04	
	(25°C - 27/19)										
	C Condition	Pdc	kW	29.1		31.9		34.8		37.2	
	(25°C - 27/19)										
Space cooling recom- mended combination 2	D Condition	EERd		15.4		15.6		19.3		16.7	
	(20°C - 27/19)	Pdc	kW	16.2		18.6		18.8		19.0	
Space cooling recom- mended combination 3	A Condition	EERd		3.25		3.13		3.27		3.12	
	(35°C - 27/19)	Pdc	kW	61.5		67.4		73.5		78.5	
	B Condition	EERd		4.79		4.94		4.82		4.66	
	(30°C - 27/19)	Pdc	kW	45.3		49.7		54.1		57.8	
	C Condition	EERd		8.71		8.77		8.83		8.64	
	(25°C - 27/19)	Pdc	kW	29.1		31.9		34.8		37.2	
	D Condition	EERd		16.6		16.2		20.5		17.5	
	(20°C - 27/19)	Pdc	kW	16.6		18.9		19.4		19.3	
Space heating (Average climate)	TBivalent	COPd (declared COP)		2.33		2.62		2.48		2.46	
		Pdh (declared heating cap)	kW	34.4		36.9		39.0		41.6	
		Tbiv (bivalent temperature)	°C	-10							
	TOL	COPd (declared COP)		2.33		2.62		2.48		2.46	
		Pdh (declared heating cap)	kW	34.4		36.9		39.0		41.6	
		Tol (temperature operating limit)	°C	-10							
	A Condition (-7°C)	COPd (declared COP)		2.76		2.94		2.89		2.85	
		Pdh (declared heating cap)	kW	30.4		32.6		34.5		36.8	
	B Condition (2°C)	COPd (declared COP)		4.19		3.89		3.99		4.03	
		Pdh (declared heating cap)	kW	18.5		19.9		21.0		22.4	
	C Condition (7°C)	COPd (declared COP)		6.02		5.82		6.32		6.26	
		Pdh (declared heating cap)	kW	11.9		12.8		13.5		14.4	
	D Condition (12°C)	COPd (declared COP)		8.49		6.47		7.76		7.33	
		Pdh (declared heating cap)	kW	11.0		9.58		10.7		10.6	

2 Specifications

2 - 1 Specifications

Technical specifications System					REYA22A	REYA24A	REYA26A	REYA28A
Space heating (Average climate) recommended combination 2	A Condition (-7°C)	COPd (declared COP)			2.73	2.93	2.89	2.86
		Pdh (declared heating cap) kW			30.4	32.6	34.5	36.8
	B Condition (2°C)	COPd (declared COP)			4.25	3.90	4.06	4.09
		Pdh (declared heating cap) kW			18.5	19.9	21.0	22.4
	C Condition (7°C)	COPd (declared COP)			6.10	5.97	6.42	6.40
		Pdh (declared heating cap) kW			11.9	12.8	13.5	14.4
	D Condition (12°C)	COPd (declared COP)			8.60	6.72	8.03	7.72
		Pdh (declared heating cap) kW			11.4	10.1	11.1	11.2
	TBivalent	COPd (declared COP)			2.26	2.17	2.24	2.20
		Pdh (declared heating cap) kW			34.4	36.9	39.0	41.6
Tbiv (bivalent temperature) °C			-10					
TOL	COPd (declared COP)			2.26	2.17	2.24	2.20	
	Pdh (declared heating cap) kW			34.4	36.9	39.0	41.6	
	Tol (temperature operating limit) °C			-10				
Space heating (Average climate) recommended combination 3	A Condition (-7°C)	COPd (declared COP)			2.77	2.95	2.91	2.87
		Pdh (declared heating cap) kW			30.5	32.7	34.6	36.9
	B Condition (2°C)	COPd (declared COP)			4.28	3.92	4.05	4.08
		Pdh (declared heating cap) kW			18.5	19.9	21.0	22.4
	C Condition (7°C)	COPd (declared COP)			6.12	5.93	6.43	6.38
		Pdh (declared heating cap) kW			11.9	12.8	13.5	14.4
	D Condition (12°C)	COPd (declared COP)			8.65	6.75	7.95	7.68
		Pdh (declared heating cap) kW			11.2	9.97	11.0	
	TBivalent	COPd (declared COP)			2.35	2.62	2.50	2.48
		Pdh (declared heating cap) kW			34.4	36.9	39.0	41.6
Tbiv (bivalent temperature) °C			-10					
TOL	COPd (declared COP)			2.35	2.62	2.50	2.48	
	Pdh (declared heating cap) kW			34.4	36.9	39.0	41.6	
	Tol (temperature operating limit) °C			-10				
Capacity range				HP	22	24	26	28
PED	Category				Category III			
Maximum number of connectable indoor units					64 (3)			
Indoor index connection	Min.				275	300	325	350
	Max.				715	780	845	910
Heat exchanger	Indoor side				Air			
	Outdoor side				Air			
	Air flow rate	Cooling	Rated	m³/h	20,532 (11)	23,460 (11)	22,399 (11)	25,138 (11)
Heating		Rated	m³/h	20,532 (11)	23,460 (11)	23,947 (11)	25,138 (11)	
Sound power level	Cooling	Nom.	dBA	84.0 (4)	84.8 (4)	84.0 (4)	86.2 (4)	
	Heating	Nom.	dBA	85.2 (4)	87.1 (4)	86.1 (4)	88.1 (4)	
Sound pressure level	Cooling	Nom.	dBA	62.6 (5)		62.7 (5)	64.1 (5)	
	Heating		dBA	63.6 (5)	65.4 (5)	64.6 (5)	66.4 (5)	
Refrigerant	Type				R-32			
	GWP				675.0			
Refrigerant oil	Type				FW68DE			
Piping connections	Liquid	Type			Brazed connection			
		OD		mm	12.70		15.90	
	Gas	Type			Brazed connection			
OD			mm			28.6		
Piping connections	HP/LP gas	Type			Brazed connection			
	HP/LP gas	OD		mm	22.20			
	Total piping length	System	Actual	m	1,000 (6)			
Defrost method					Reversed cycle			
Capacity control	Method				Inverter controlled			
Indication if the heater is equipped with a supplementary heater					No			
Supplementary heater	Back-up capacity	Heating	elbu	kW	0.0			
Power consumption in other than active mode	Crankcase heater mode	Cooling	PCK	kW	0.000			
		Heating	PCK	kW	0.106		0.111	
	Off mode	Cooling	POFF	kW	0.100		0.108	
		Heating	POFF	kW	0.106		0.111	
	Standby mode	Cooling	PSB	kW	0.100		0.108	
		Heating	PSB	kW	0.106		0.111	
	Thermo-stat-off mode	Cooling	PTO	kW	0.002			
		Heating	PTO	kW	0.106	0.121	0.111	0.121
Cooling	Cdc (Degradation cooling)				0.25			
Heating	Cdh (Degradation heating)				0.25			

2 Specifications

2 - 1 Specifications

2

Electrical specifications System				REYA10A	REYA13A	REYA16A	REYA18A	REYA20A
Power supply	Name			Y1				
	Phase			3N~				
	Frequency			50				
	Voltage			380-415				
Power supply intake				Both indoor and outdoor unit				
Voltage range	Min.			-10				
	Max.			10				
Current - 50Hz	Nominal running current (RLA)	Combina- tion A	Cooling	-				
		Combina- tion B	Cooling	-				
		Cooling	A	11.2 (8)	16.0 (8)	20.9 (8)	23.4 (8)	26.1 (8)
	Starting current (MSC) - remark			See note 9				
	Zmax List			No requirements				
	Minimum Ssc value			5,196 (9)	5,387 (9)	5,577 (9)	6,599 (9)	6,945 (9)
	Minimum circuit amps (MCA)			30.0 (10)	31.1 (10)	32.2 (10)	38.1 (10)	40.1 (10)
Maximum fuse amps (MFA)			A	40 (11)			50 (11)	
Power Performance	Power factor	Combina- tion B	35°C ISO - Full load	-				
			46°C ISO - Full load	-				
Wiring connections - 50Hz	For power supply	Quantity		5G				
	For connec- tion with indoor	Quantity		2				
		Remark		F1,F2				

Electrical specifications System				REYA22A	REYA24A	REYA26A	REYA28A
Power supply	Name			Y1			
	Phase			3N~			
	Frequency Hz			50			
	Voltage V			380-415			
Power supply intake				Both indoor and outdoor unit			
Voltage range	Min. %			-10			
	Max. %			10			
Current - 50Hz	Nominal running current (RLA)	Combina- tion A	Cooling	-			
		Combina- tion B	Cooling	-			
		Cooling	A	28.6 (8)	31.5 (8)	34.1 (8)	36.7 (8)
	Starting current (MSC) - remark			See note 9			
	Zmax List			No requirements			
	Minimum Ssc value			7,967 (9)	8,158 (9)	8,833 (9)	9,526 (9)
	Minimum circuit amps (MCA)			46.0 (10)	47.1 (10)	51.0 (10)	55.0 (10)
	Maximum fuse amps (MFA)			63 (11)			
Power Performance	Power factor	Combina- tion B	35°C ISO - Full load	-			
			46°C ISO - Full load	-			
Wiring connections - 50Hz	For power supply	Quantity		5G			
		Quantity		2			
	For connec- tion with indoor	Remark		F1,F2			

Technical specifications Module				REMA5A
Cooling capacity	Prated,c		kW	14.0 (1)
Heating capacity	Max.	6°CWB	kW	16.0 (2)
Capacity range			HP	5
PED	Category			Category III
	Most critical part	Name		Liquid receiver
		Ps*V	Bar*l	508
Maximum number of connectable indoor units				64 (3)
Indoor index connection	Min.			63
	Max.			163
Dimensions	Unit	Height	mm	1,685
		Width	mm	930
		Depth	mm	765
	Packed unit	Height	mm	1,820
		Width	mm	995
		Depth	mm	860
Weight	Unit	kg	213	
	Packed unit	kg	224	
Packing	Material			Carton
	Weight			1.5
Packing 2	Material			Wood
	Weight			8.9

2 Specifications

2 - 1 Specifications

Technical specifications Module					REMA5A
Packing 3	Material				Plastic
	Weight		kg		0.6
Casing	Colour				Daikin White
	Material				Painted galvanized steel plate
Heat exchanger	Type				Cross fin coil
	Indoor side				Air
	Outdoor side				Air
	Air flow rate	Cooling	Rated	m ³ /h	9,145
		Heating	Rated	m ³ /h	9,145
Fan	Quantity				1
	External static pressure	Max.		Pa	78
Fan motor	Quantity				1
	Type				DC motor
	Output			W	550
Compressor	Quantity				1
Compressor	Type				Hermetically sealed scroll compressor
	Crankcase heater			W	33
Operation range	Cooling	Min.		°CDB	-5
		Max.		°CDB	46
	Heating	Min.		°CWB	-20
		Max.		°CWB	16
Sound power level	Cooling	Nom.		dBA	78.3 (4)
	Heating	Nom.		dBA	79.4 (4)
Sound pressure level	Cooling	Nom.		dBA	56.3 (5)
	Heating			dBA	58.1 (5)
Refrigerant	Type				R-32
	GWP				675.0
	Charge			kg	9.00
	Charge			tCO ₂ Eq	6.08
Refrigerant oil	Type				FW68DE
Piping connections	Liquid	Type			Braze connection
		OD		mm	9.52
	Gas	Type			Braze connection
		OD		mm	19.1
	HP/LP gas	Type			Braze connection
		OD		mm	15.90
Defrost method					Reversed cycle
Capacity control	Method				Inverter controlled
Safety devices	Item	01			High pressure switch
		02			Fan driver overload protector
		03			Inverter overload protector

Electrical specifications Module					REMA5A
Power supply	Name				Y1
	Phase				3N~
	Frequency			Hz	50
	Voltage			V	380-415
Power supply intake					Both indoor and outdoor unit
Voltage range	Min.			%	-10
	Max.			%	10
Current - 50Hz	Nominal running current (RLA)	Combina- tion A	Cooling		-
		Combina- tion B	Cooling		-
		Cooling		A	5.6 (8)
	Starting current (MSC) - remark				See note 9
	Zmax	List			No requirements
	Minimum Ssc value				2,598 (9)
	Minimum circuit amps (MCA)				15.0 (10)
	Maximum fuse amps (MFA)				20 (11)
Power Performance	Power factor	Combina- tion B	35°C ISO - Full load		-
			46°C ISO - Full load		-
Wiring connections - 50Hz	For power supply	Quantity			5G
	For connection with indoor	Quantity			2
		Remark			F1,F2
Compressor	Crankcase heater			W	33

(1)Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m |
(2)Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m |
(3)The actual number of units depends on the connection ratio (CR) and the restrictions for the system. |

2 Specifications

2 - 1 Specifications

- (4) Air Flow Rate (AFR) of multi outdoor systems is sum of AFR of the individual systems it consists of |
- (5) Sound power level is an absolute value that a sound source generates. |
- (6) Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to the sound level drawings. |
- (7) Refer to refrigerant pipe selection or installation manual |
- (8) RLA is based on following conditions: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB |
- (9) MSC means the maximum current during start up of the compressor. This unit uses only inverter compressors. Starting current is always $\leq$ max. running current. |
- (10) In accordance with EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with $S_{sc} \geq$ minimum S_{sc} value |
- (11) MCA must be used to select the correct field wiring size. The MCA can be regarded as the maximum running current. |
- (12) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). |
- (13) Maximum allowable voltage range variation between phases is 2%. |
- (14) Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |
- (15) Sound values are measured in a semi-anechoic room. |
- (16) EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current $> 16A$ and $\leq 75A$ per phase |
- (17) S_{sc} : Short-circuit power |
- (18) For detailed contents of standard accessories, see installation/operation manual |
- (19) Multi combination (10~28HP) data is corresponding with the standard multi combination

3 Options

3 - 1 Options

REYA-A

REMA5A

VRV5

R32 models

Heat recovery

Option list

		REYA*A*								REMA*A*	Multi-2- unit
Description	Option	8	10	12	14	16	18	20	5		
Low ambient option	EKBPH012TA	O	O	O	-	-	-	-	O	O (*1)	
Bottom plate heater	EKBPH020TA	-	-	-	O	O	O	O	-	O (*1)	
Demand adaptor kit (*3)	DTA104A*	O	O	O	O (*2)	O (*2)	O (*2)	O (*2)	O	O	
External control adapter (*3)	DTA109A51*	O	O	O	O (*2)	O (*2)	O (*2)	O (*2)	O	O	
Refnet header	KHRQ23M29H	O	O	O	O	O	O	O	O	O	
	KHRQ23M64H	-	-	O	O	O	O	O	-	O	
	KHRQ23M75H	-	-	-	-	-	-	-	-	O	
Refnet joint	KHRQ23M20T	O	O	O	O	O	O	O	O	O	
	KHRQ23M29T	O	O	O	O	O	O	O	O	O	
	KHRQ23M64T	-	-	O	O	O	O	O	-	O	
	KHRQ23M75T	-	-	-	-	-	-	-	-	O	
Refrigerant branch kit	BHFQ23P907A	-	-	-	-	-	-	-	-	O	

*1 -1- option kits are required per unit.

*2 These options require mounting plate -EKS826B1-.

*3 Because both adaptor PCBs have the same installation location, it is only possible to install either -DTA104A- or -DTA109A51-.

Remote controllers and centralised controllers with R32 safety system functionality

Nr.	Item	Sound pressure level of built-in alarm	Mode			
			Fully functional	Alarm only	Supervisor	
			Built-in alarm	Built-in alarm	Built-in alarm	External alarm connection
1	BRC1H52/82*	65- dBA at 1- m	O	O	O	-
2	DCM601A51 (*4)	NA	-	-	-	O (*6)
3	DCM601B51 (*5)	65- dBA at 1- m	-	-	O	O (*6)

*4 From software version 1.28.00- onwards.

*5 From software version 1.32.00- onwards.

*6 via WAGO module

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4 Combination table

4 - 1 Combination Table

REYA-A

REMA5A

VRV5
Heat recovery
Multi-unit standard combinations table

		5HP	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Non-continuous heating	REMA5* (*1)	1							
	REYA8*		1						
	REYA10*			1					
	REYA12*				1				
	REYA14*					1			
	REYA16*						1		
	REYA18*							1	
	REYA20*								1
Continuous heating ·2· outdoor units	REYA10*	2							
	REYA13*	1	1						
	REYA16*		2						
	REYA18*		1	1					
	REYA20*		1		1				
	REYA22*			1	1				
	REYA24*		1				1		
	REYA26*				1	1			
	REYA28*				1		1		

Notes

1. The ·REMA5*· unit cannot be used as a standalone unit and may only be used in standard combinations.
2. Standard and free combinations have different piping restrictions.
3. Never combine more than ·2· units to create a multi-combination.

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REYA-A

REMA5A

Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

Indoor unit in the system	
FXDA10A	FXZA15A and/or FXAA15A
Yes	Yes

1. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) ≤ ·85·%: no special restrictions.
Follow the restrictions that apply to regular ·VRV DX· indoor units.
2. In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) > ·85·%: special restrictions apply.
 - A. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: no special restrictions.
 - B. When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system ≤ ·65·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class > ·50·: the restrictions below apply.
 - ° 85% < CR ≤ 95% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·65·%.
 - ° 95% < CR ≤ 100% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·55·%.
 - ° 100% < CR ≤ 105% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be ≤ ·40·%.
 - ° 105% < CR ≤ 130% -> ·FXDA10A· cannot be used

Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

4D141206

4 Combination table

4 - 1 Combination Table

REYA-A

REMA5A

Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

Indoor unit in the system	
FXDA10A	FXZA15A and/or FXAA15A
Yes	No

- In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) $\leq$ ·85·%: no special restrictions.
Follow the restrictions that apply to regular ·VRV DX· indoor units.
- In case the system contains the indoor unit situation as shown in the table above, and the total connection ratio (·CR·) $>$ ·85·%: special restrictions apply.
 - When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system $\leq$ ·65·%, and ALL other ·VRV DX· indoor units have an individual capacity class $>$ ·50·: no special restrictions.
 - When the connection ratio (·CR1·) of the sum of all ·FXDA10A· units in the system $\leq$ ·65·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class $>$ ·50·: the restrictions below apply.
 - ° 85% $<$ CR $\leq$ 95% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·65·%.
 - ° 95% $<$ CR $\leq$ 100% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·55·%.
 - ° 100% $<$ CR $\leq$ 105% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·40·%.
 - ° 105% $<$ CR $\leq$ 110% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·30·%.
 - ° 110% $<$ CR $\leq$ 115% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·20·%.
 - ° 115% $<$ CR $\leq$ 120% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·10·%.
 - ° 120% $<$ CR $\leq$ 125% -> ·CR1· of the sum of all ·FXDA10A· indoor units in the system must be $\leq$ ·5·%.
 - ° 125% $<$ CR $\leq$ 130% -> ·FXDA10A· cannot be used

Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

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REYA-A

REMA5A

Unit combination restrictions: ·VRV5· outdoor units (all models) + ·10 / 15·-class indoor units

Indoor unit in the system	
FXDA10A	FXZA15A and/or FXAA15A
No	Yes

- In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) $\leq$ ·100·%: no special restrictions.
Follow the restrictions that apply to regular ·VRV DX· indoor units.
- In case the system contains the indoor units situation which as shown in the table above, and the total connection ratio (·CR·) $>$ ·100·%: special restrictions apply.
 - When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system $\leq$ ·70·%, and ALL other ·VRV DX· indoor units have an individual capacity class $>$ ·50·: no special restrictions.
 - When the connection ratio (·CR1·) of the sum of all ·FXZA15A· and/or ·FXAA15A· units in the system $\leq$ ·70·%, and NOT ALL other ·VRV DX· indoor units have an individual capacity class $>$ ·50·: the restrictions below apply.
 - ° 100% $<$ CR $\leq$ 105% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be $\leq$ ·70·%.
 - ° 105% $<$ CR $\leq$ 110% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be $\leq$ ·60·%.
 - ° 110% $<$ CR $\leq$ 115% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be $\leq$ ·40·%.
 - ° 115% $<$ CR $\leq$ 120% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be $\leq$ ·25·%.
 - ° 120% $<$ CR $\leq$ 125% -> ·CR1· of the sum of all ·FXZA15A· and/or ·FXAA15A· indoor units in the system must be $\leq$ ·10·%.
 - ° 125% $<$ CR $\leq$ 130% -> ·FXZA15A· and ·FXAA15A· cannot be used.

Remark

Only the ·10 / 15·-class indoor units explicitly mentioned on this page are in scope. Other indoor units follow the rules that apply to regular ·VRV DX· indoor units.

4D141206

5 Capacity tables

5 - 1 Capacity Table Legend

5

In order to fulfill more your requirements on quick access of data in the format you require, we have developed a tool to consult capacity tables.

Below you can find the link to the capacity table database and an overview of all the tools we have to help you select the correct product:

- **Capacity table database:** lets you find back and export quickly the capacity information you are looking for based upon unit model, refrigerant temperature and connection ratio.
- You can access the capacity table viewer here:
https://my.daikin.eu/content/denv/en_US/home/applications/software-finder/capacity-table-viewer.html



- An overview of **all software tools** that we offer can be found here:
https://my.daikin.eu/denv/en_US/home/applications/software-finder.html



5 Capacity tables

5 - 2 Integrated Heating Capacity Correction Factor

REYA-A

REMA5A

VRV5

Heat recovery

Integrated heating capacity coefficient

Inlet air temperature of heat exchanger

[°CDB/°CWB]	-7/-7.6	-5/-5.6	-3/-3.7	0/-0.7	3/2.2	5/4.1	7/6
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Integrated correction factor for frost accumulation (C)

For single unit installation	8HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
	10HP	0,90	0,88	0,82	0,75	0,76	0,83	1,00
	12HP	0,90	0,87	0,82	0,71	0,72	0,81	1,00
	14HP	0,90	0,87	0,81	0,68	0,69	0,80	1,00
	16HP	0,90	0,87	0,81	0,68	0,68	0,79	1,00
	18HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
For multi-unit installation	20HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
	10HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
	13HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
	16HP	0,90	0,88	0,83	0,80	0,81	0,85	1,00
	18HP	0,90	0,88	0,83	0,77	0,78	0,84	1,00
	20HP	0,90	0,88	0,83	0,75	0,76	0,83	1,00
	22HP	0,90	0,88	0,82	0,73	0,74	0,82	1,00
	24HP	0,90	0,88	0,82	0,74	0,74	0,82	1,00
	26HP	0,90	0,87	0,82	0,70	0,71	0,80	1,00
	28HP	0,90	0,87	0,82	0,70	0,70	0,80	1,00

Notes

1. The figure shows the integrated heating capacity for a single cycle (from one defrost operation to the next).
2. When there is an accumulation of snow against the outdoor unit heat exchanger, there will always be a temporary reduction in capacity depending on the outdoor temperature (°C DB), relative humidity (RH) and the amount of frosting which occurs.
3. The multi-combination data -VRV4- corresponds with the standard multi-combination of drawing -4D138289-.

The heating capacity tables do not take into account the capacity reduction in case of frost accumulation or defrost operation.

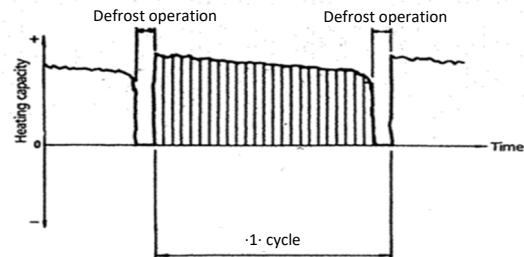
The capacity values that take these factors into account, or in other words, the integrated heating capacity values, can be calculated as follows:

Formula $A = B \cdot C$

A= Integrated heating capacity

B= Capacity characteristics value

C= Integrated correction factor for frost accumulation (see table)

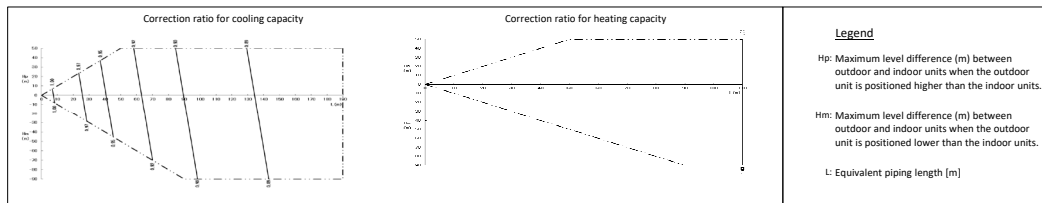


4D141185

5 Capacity tables

5 - 3 Capacity Correction Factor

REYA8A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
8HP	9,5	12,7

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

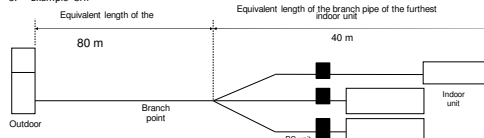
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
8HP	1	0,5	1	0,2

5. Example: 8HP



Overall equivalent length

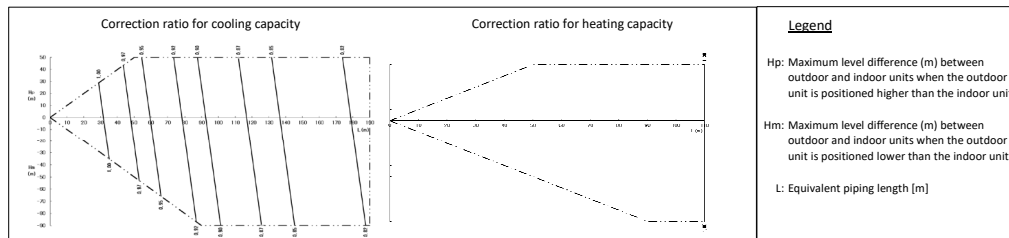
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,2 + 40 m = 56 m

Capacity correction ratio (height difference = 0)

- Cooling mode = 0,91
- Heating mode = 1,00

4D141191

REYA10A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
10HP	9,5	12,7

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

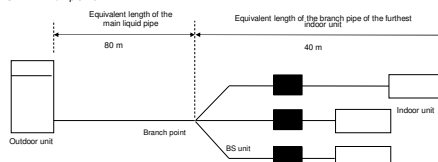
4.

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
10HP	1	0,5	1	0,2

5. Example: 10HP



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,2 + 40 m = 56 m

Capacity correction ratio (height difference = 0)

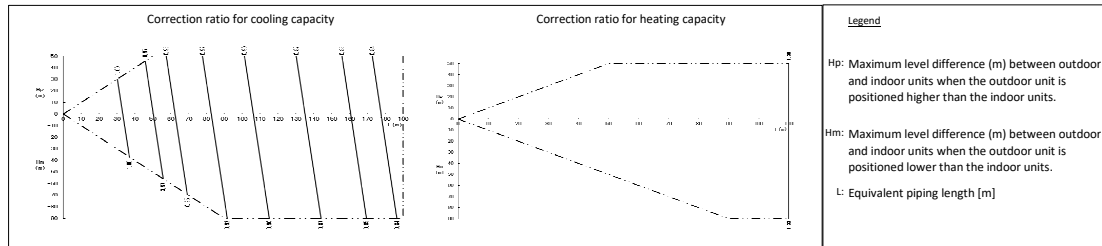
- Cooling mode = 0,92
- Heating mode = 1,00

4D141191

5 Capacity tables

5 - 3 Capacity Correction Factor

REYA12A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
12HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

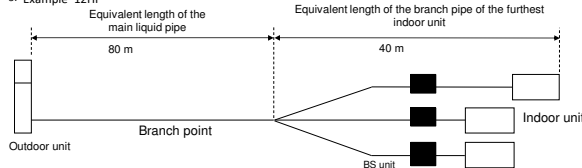
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
12HP	1	0,5	1	0,3

5. Example -12HP-



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

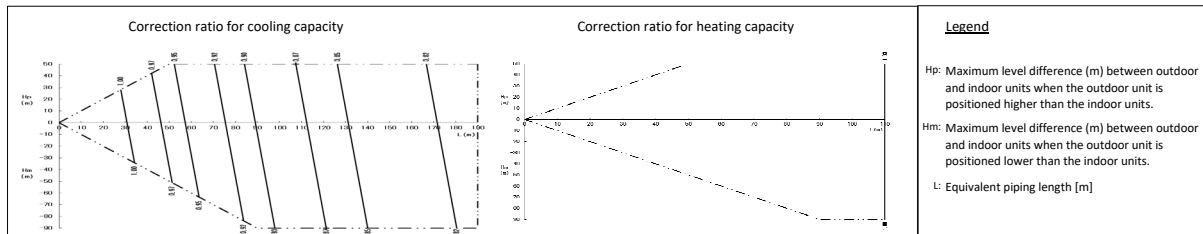
Capacity correction ratio (height difference = 0)

- Cooling mode = 0,92
- Heating mode = 1,00

4D141191

REYA13A

REYA14A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
13+14HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

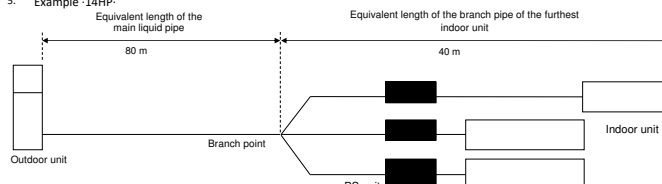
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
13+14HP	1	0,5	1	0,3

5. Example -14HP-



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)

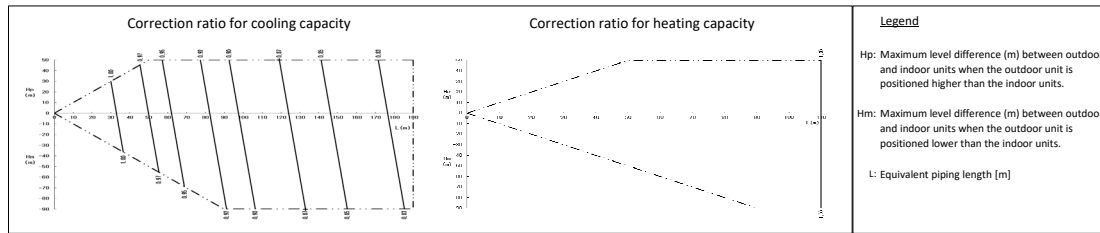
- Cooling mode = 0,91
- Heating mode = 1,00

4D141191

5 Capacity tables

5 - 3 Capacity Correction Factor

REYA16A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
16HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

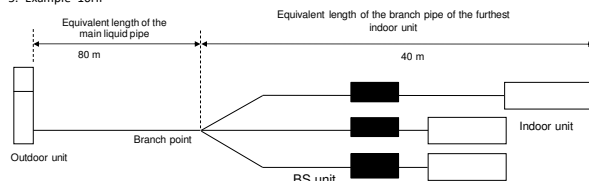
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
16HP	1	0,5	1	0,3

5. Example -16HP-



Overall equivalent length

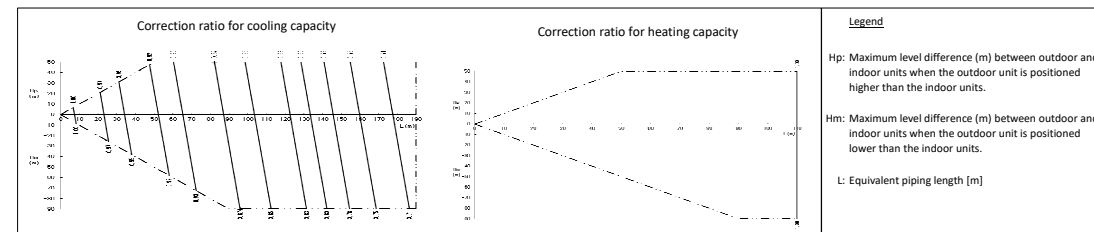
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)

- Cooling mode = 0,92
- Heating mode = 1,00

4D141191

REYA18A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at 100\% connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

Indoor connection ratio > 100%.

$$\text{Maximum capacity of outdoor units} = \text{Capacity of outdoor units from capacity table at installed connection ratio.} \times \text{Correction ratio of piping to furthest indoor unit}$$

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
18HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

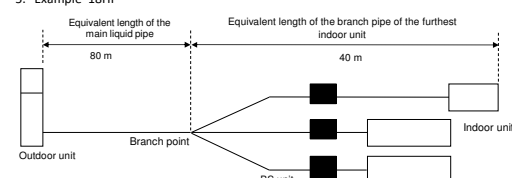
4. Overall equivalent length

$$\text{Overall equivalent length} = \text{Equivalent length of the main pipe} \times \text{Correction factor} + \text{Equivalent length of the branch pipes}$$

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
18HP	1	0,5	1	0,3

5. Example -18HP-



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)

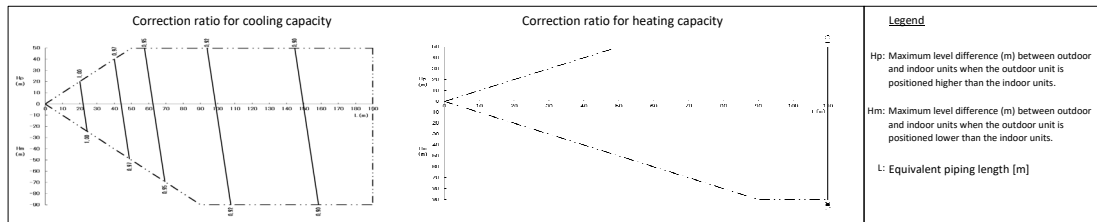
- Cooling mode = 0,88
- Heating mode = 1,00

4D141191

5 Capacity tables

5 - 3 Capacity Correction Factor

REYA20A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.
- Method of calculating the capacity of the outdoor units.
The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio. X Correction ratio of piping to furthest indoor unit

Indoor connection ratio > 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio. X Correction ratio of piping to furthest indoor unit

- Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
20HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

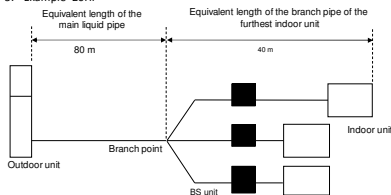
- Overall equivalent length

Overall equivalent length = Equivalent length of the main pipe X Correction factor + Equivalent length of the branch pipes

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
20HP	1	0,5	1	0,3

- Example - 20HP-



Overall equivalent length

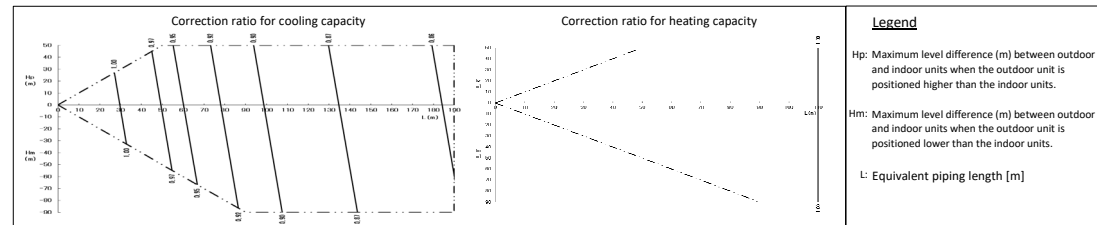
- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)

- Cooling mode = 0,93
- Heating mode = 1,00

4D141191

REYA22A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions. Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.
- Method of calculating the capacity of the outdoor units.
The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio. X Correction ratio of piping to furthest indoor unit

Indoor connection ratio > 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio. X Correction ratio of piping to furthest indoor unit

- Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
22HP	12,7	15,9

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

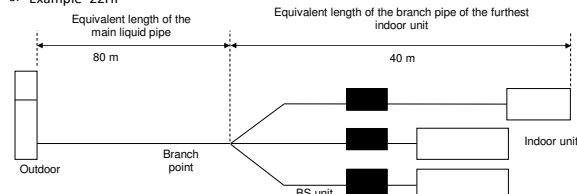
- Overall equivalent length

Overall equivalent length = Equivalent length of the main pipe X Correction factor + Equivalent length of the branch pipes

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
22HP	1	0,5	1	0,3

- Example - 22HP-



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,3 + 40 m = 64 m

Capacity correction ratio (height difference = 0)

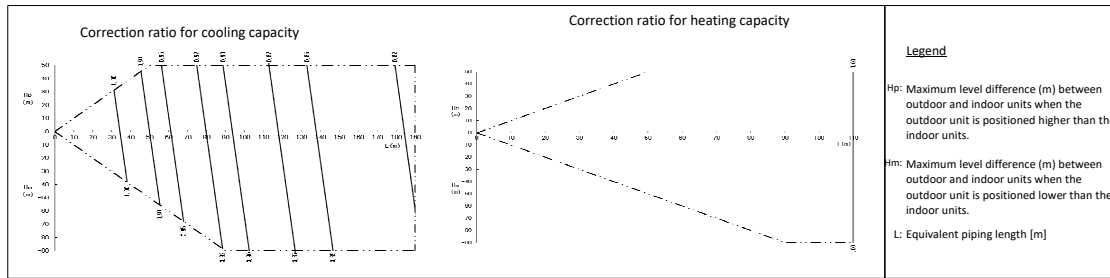
- Cooling mode = 0,92
- Heating mode = 1,00

4D141191

5 Capacity tables

5 - 3 Capacity Correction Factor

REYA26A



Notes

- These figures illustrate the capacity correction factor due to the piping length for a standard indoor unit system at maximum load (with the thermostat set to maximum), under standard conditions.

Moreover, under partial load conditions, there is only a minor deviation for the capacity correction ratio, as shown in the above figures.

2. Method of calculating the capacity of the outdoor units.

The maximum capacity of the system will be either the total capacity of the indoor units or the maximum capacity of the outdoor units as mentioned below, whichever is less.

Indoor connection ratio ≤ 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at 100% connection ratio. X Correction ratio of piping to furthest indoor unit

Indoor connection ratio > 100%.

Maximum capacity of outdoor units = Capacity of outdoor units from capacity table at installed connection ratio. X Correction ratio of piping to furthest indoor unit

3. Main liquid pipe size increase

Model	Standard liquid side Ø	Increased liquid side Ø
26HP	15,9	19,1

For the allowed system setups and the rules for when to increase the main liquid piping diameter, refer to the installation manual.

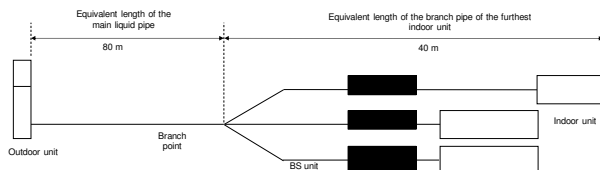
4. Overall equivalent length

Overall equivalent length = Equivalent length of the main pipe X Correction factor + Equivalent length of the branch pipes

Choose the correction factor from the following table.

Model	Correction ratio for cooling capacity		Correction ratio for heating capacity	
	Standard size	Size increase	Standard size	Size increase
26HP	1	0,5	1	0,4

5. Example -26HP-



Overall equivalent length

- Cooling mode = 80 m x 0,5 + 40 m = 80 m
- Heating mode = 80 m x 0,4 + 40 m = 72 m

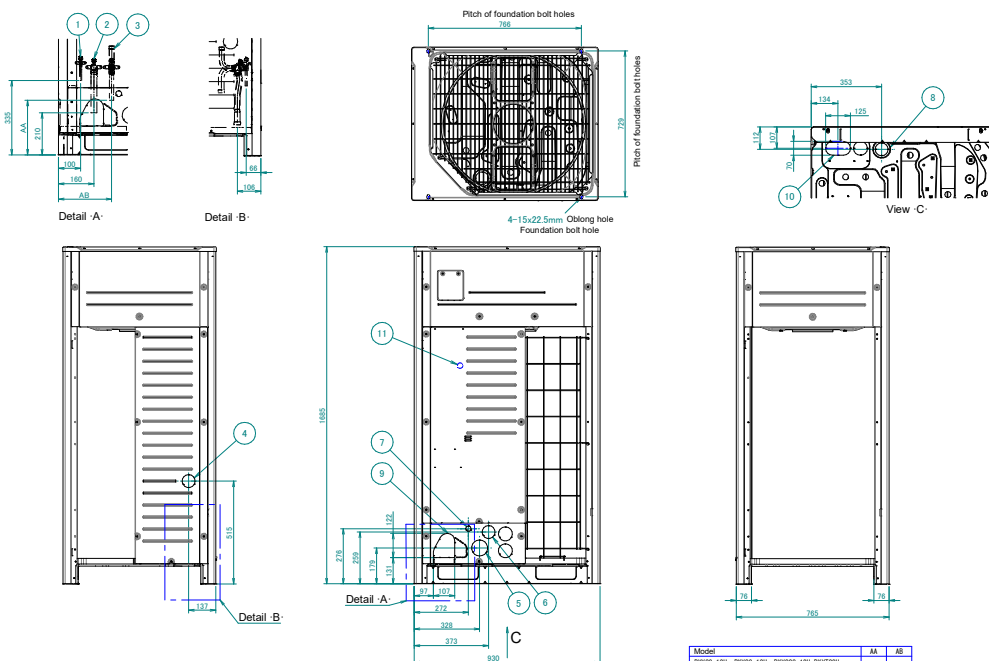
Capacity correction ratio (height difference = 0)

- Cooling mode = 0,92
- Heating mode = 1,00

4D141191

6 Dimensional drawings

6 - 1 Dimensional Drawings

REYA8-12A
REMA5A

Notes

1. Detail 'A' and detail 'B' indicate the dimensions after fixing the attached piping
2. Items : 4 x 10 : Knockout hole

2. Items 4 - 10: Knockout hole

3. Gas m

3. Gas pipe

3. Gas pipe
RYYQ8U, RYMQ8U, RXYQ8U, RXYQQ8U, RXYTQ8U : Ø 19.1- brazing connection
RYMA5A, RXYA8-12A

RYYQ10U, RYMQ10U, RXYQ10U, RXYQQ10U : Ø 22.2: brazing connection

REMQ5U, REMA5A, REYQ8-12U, REYA8-12A	: Ø 25.4: brazing connection
RYYQ12U, RYMQ12U, RXYQ12U, RXYQQ12U	: Ø 28.6: brazing connection

Liquid pipe
D10/G0.10L, D10/G0.10L, D10/G0.10L, D10/G0.10L : Ø 28.6, brazing connection

RYYQ8-10U, RYMQ8-10U, RXYQ8-10U, RXYQ8-10U, : Ø 9.5: brazing connection
REMQU, REMA5A, REYQ8-12U, REYA8-12A, RXYTQ8U

RYMA5A, RXYA8-12A

RYYQ12U, RYMQ12U, RXYQ12U, RXYQ12U : Ø 12.7- brazing connection

Equalising pipe
 RYMQ8-10U : Ø 19.1 - brazing connection
 RYMQ12U : Ø 25.4 - brazing connection

RYMQ12U	: Ø 22.2: brazing connection
RYMA5A, RXYA8-12A	: Ø 25.4: brazing connection

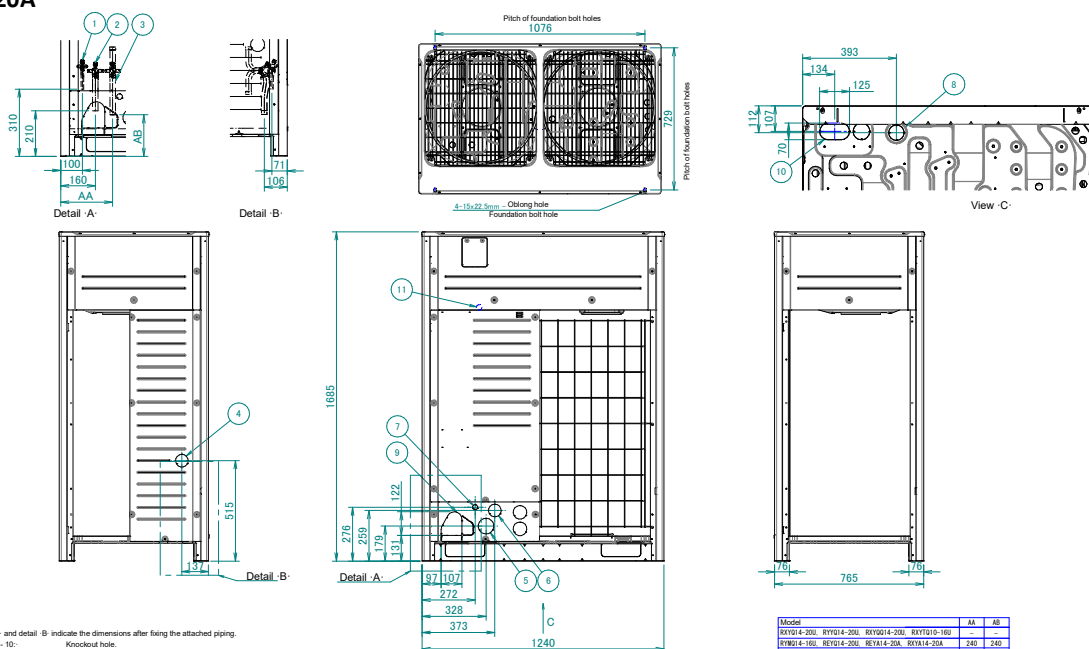
High pressure/low pressure gas pipe

REM05U, REMA5A, REYQ8-12U, REYA8-12A : Ø 19.1- brazing connection

No.	Part name	Remark
1	Liquid pipe connection port	See note 3.
2	Gas pipe connection port	See note 3.
	Equalizing pipe connection port	RYM5A, RXYAB-12A
3	Equalizing pipe connection port	See note 3.
	High pressure/low pressure gas pipe	
	Gas pipe connection port	RYM5A, RXYAB-12A
4	Power cord routing hole (side)	②65
5	Power cord routing hole (front)	②60
6	Power cord routing hole (front)	②65
7	Power cord routing hole (front)	②27
8	Power cord routing hole (bottom)	②65
9	Pipe routing hole (top)	
10	Pipe routing hole (bottom)	
11	Grounding terminal	Inside of the switch box (MS)

2D119001B

REYA14-20A



Notes

Notes

1. Detail 'A' and detail 'B' indicate the dimensions after fixing the attached piping

2. Items 4 - 10: Knockout hole

3. Gas pipe

3. Gas pipe
RXYTQ10U

REYQ14-20U, REYA14-20A : Ø 25,4 - brazing connection

RYYQ14-20U, RYMQ14-20U RXYQ14-20U, RXYQQ14-20U, RXYTQ12-16U
RXYA14-20A

RXYA14-20A : Ø 19.1 · brazing connection

RXYTQ10IU : Ø -9.5- brazing connection

RYYQ14-16U, RYMQ14-16U, RXYQ14-16U, RXYQQ14-16U, REYQ14-20U, REY
A14-20A, RXYTQ12-16U, RXYA14-20A : Ø -12.7- brazing connection

RYYQ18-20U, RYMQ18-20U, RXYQ18-20U, RXYQQ18-20U : Ø 15.9- brazing connection

Equalising pipe
RYMO14-16LJ - Ø 22.2; brazing connection

RYMQ14-16U	: Ø 22.2- brazing connection
RYMQ18-20U	: Ø 28.6- brazing connection

RYHA16-20A : Ø 28.6- brazing connection
 RXYA14-20A : Ø 25.4- brazing connection

High pressure/low pressure gas pipe
REYO14-20U REYO14-20A

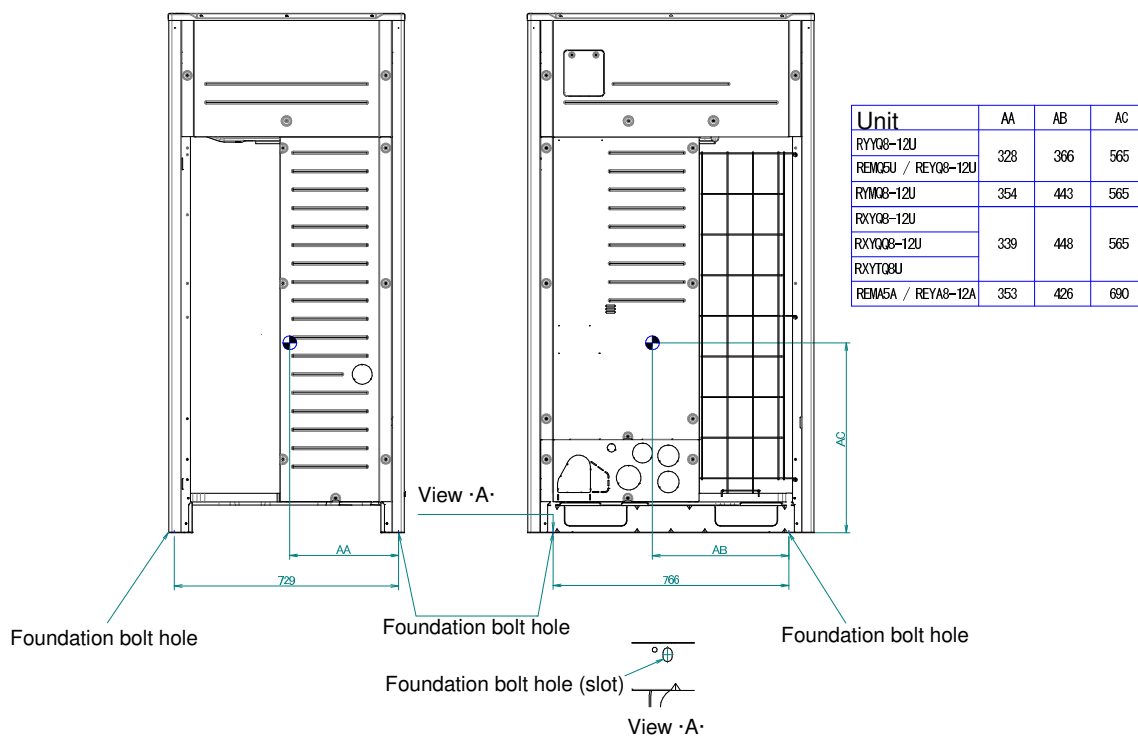
No.	Part name	Remark
1	Liquid pipe connection port	See note -3-
2	Gas pipe connection port Equalizing pipe connection port	See note -3- RXYA14-20A
3	Equalizing pipe connection port High pressure/low pressure gas pipe Gas pipe connection port	See note -3- RXYA14-20A
4	Power cord routing hole (side)	①65
5	Power cord routing hole (front)	①65
6	Power cord routing hole (front)	①65
7	Power cord routing hole (front)	①27
8	Power cord routing hole (bottom)	①65
9	Pipe routing hole (front)	①65
10	Pipe routing hole (bottom)	①65
11	Grounding terminal	Inside of the switch box (MB)

2D119091B

7 Centre of gravity

7 - 1 Centre of Gravity

REYA8-12A
REMA5A

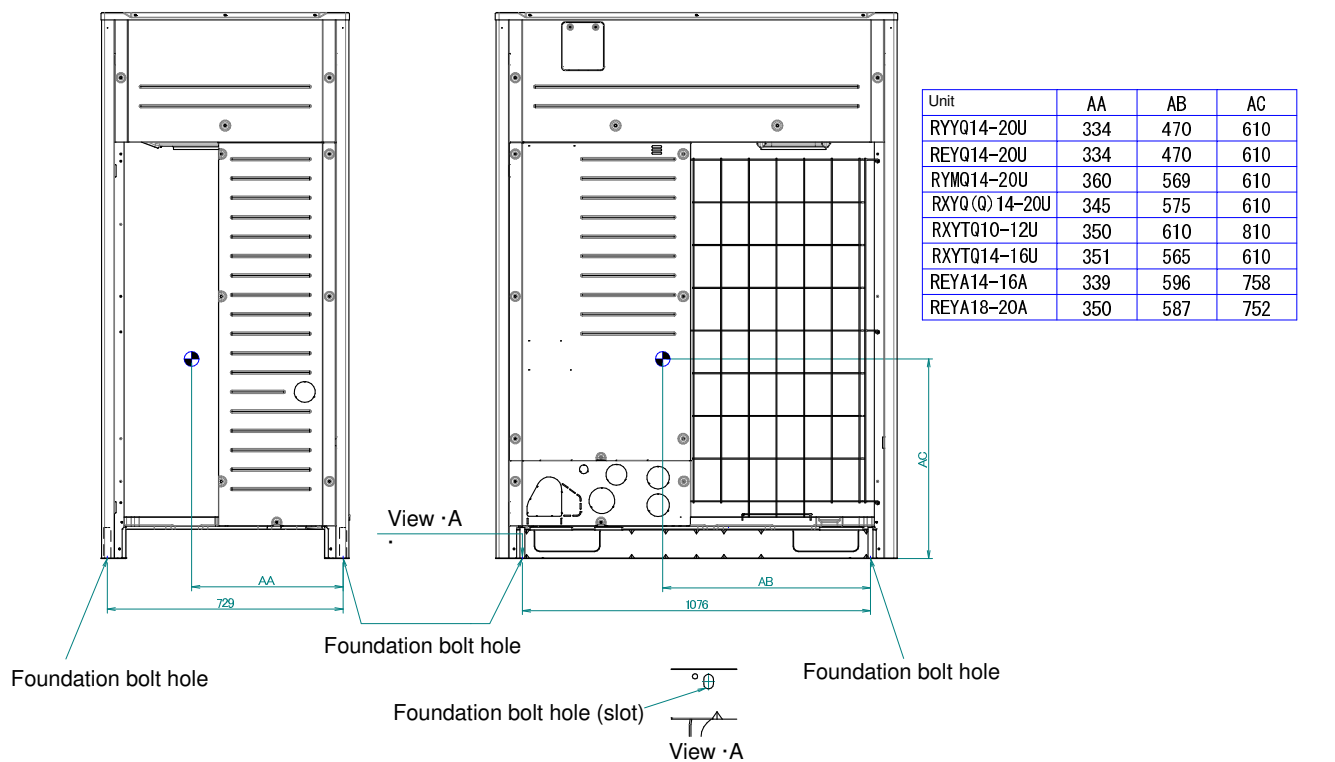


3D119703A

7 Centre of gravity

7 - 1 Centre of Gravity

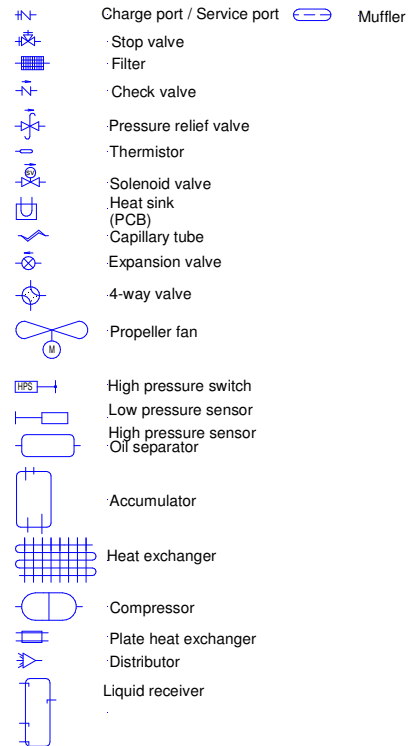
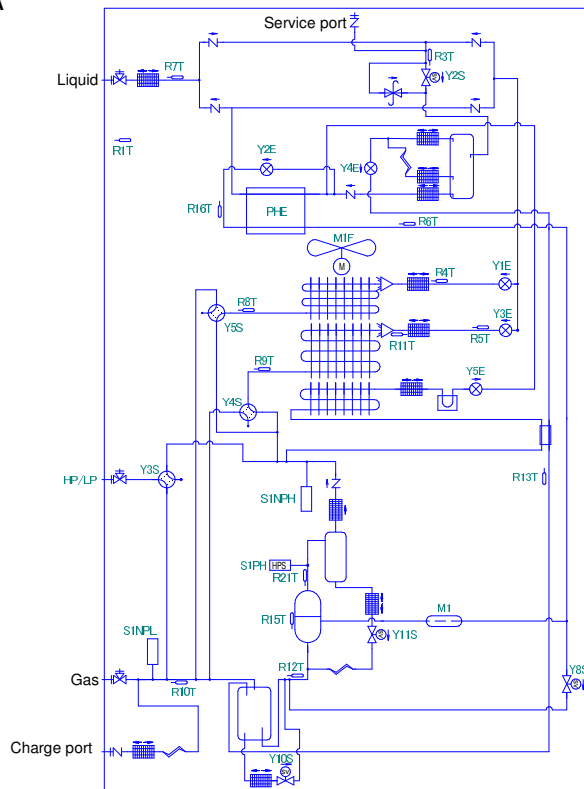
REYA14-20A



3D119704A

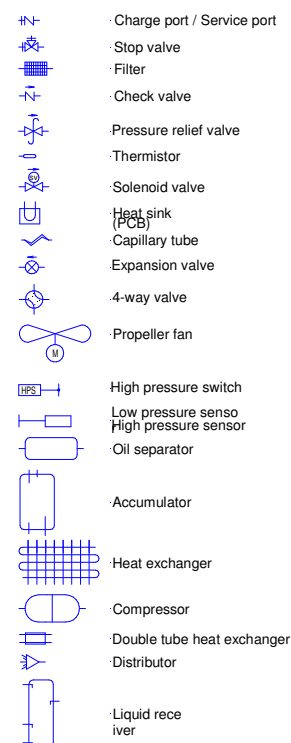
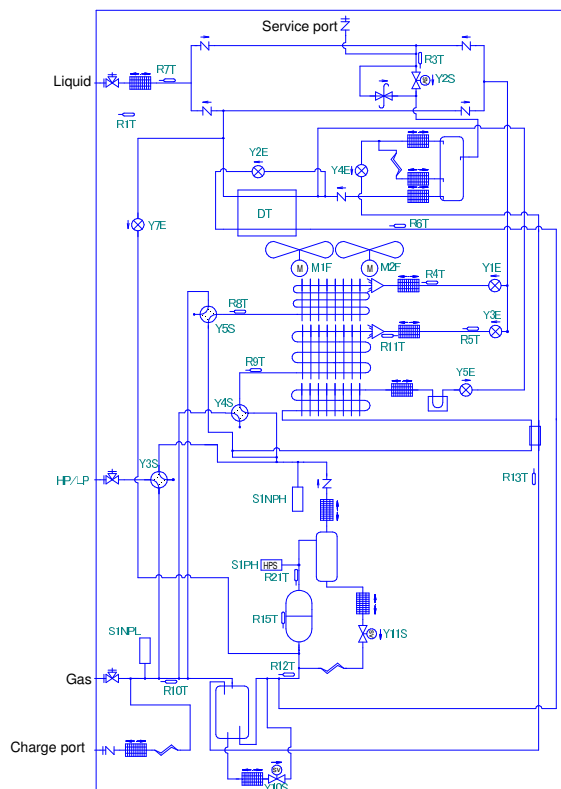
8 Piping diagrams

8 - 1 Piping Diagrams

REYA8-12A
REMA5A


3D138283

REYA14-20A



3D138284

9 Wiring diagrams

9 - 1 Wiring Diagrams - Three Phase

REYA8-12A / REMA5A

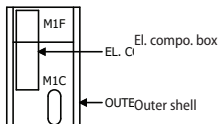
NOTES to go through before starting the unit

1. Symbols:

X1M	: Main terminal		: Option
	: Earth wiring		: Wiring depending on model
	: Field wire		: Not mounted in switch box
	: Field cable		: PCB
	: Screened conductor		
	: Several wiring possibilities		

- Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
- Do not operate the unit by short-circuiting protection device S1PH.
- Refer to the installation manual for indoor-outdoor transmission F1-F2 and outdoor-multi transmission Q1-Q2 wiring.
- When using the central control system, connect outdoor-outdoor transmission F1-F2.
- The capacity of the contact is 220~240V AC - 0.5A (Rush current needs 3A or less).
- Use dry contact for micro-current (10mA or less, 15V DC).
- When using the optional adapter, refer to the installation manual of the optional adapter.

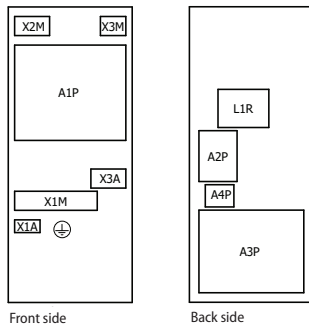
LAYOUT OF M1C, M1F, M2F



TERMINAL OF M1C



POSITION IN SWITCH BOX



LEGEND

Part n°	Description	Part n°	Description
A1P	Printed circuit board (main)	R13T	Thermistor (Receiver gas)
A2P	Printed circuit board (noise filter)	R15T	Thermistor (M1C body)
A3P	Printed circuit board (inverter)	R16T	Thermistor (Gas injection)
A4P	Printed circuit board (fan)	R21T	Thermistor (M1C discharge pipe)
BS* (A1P)	Push button switch	S1NPH	High pressure sensor
DS* (A1P)	Dipswitch	S1NPL	Low pressure sensor
E1HC	Crank case heater	S1PH	High pressure switch
E3H	* Bottom plate heater	SEG* (A1P)	7-segment display
F1U (A1P)	Fuse T 10 A 250 V	SFB	# Mechanical ventilation error input
F1U, F2U	Fuse T 1 A 250 V	T1A	Current sensor
F3U	# Field fuse	X*A	Connector
HAP (A1P)	Running LED (service monitor-green)	X*M	Terminal strip
K*R (A*P)	Relay on PCB	Y1E	Electronic exp. valve (Heat exch. upper)
L1R	Reactor	Y2E	Electronic exp. valve (Subc. heat exch.)
M1C	Motor (compressor)	Y3E	Electronic exp. valve (Heat exch. lower)
M1F	Motor (fan)	Y4E	Electronic exp. valve (Receiver gas)
Q1DI	# Earth leakage circuit breaker	Y5E	Electronic exp. valve (Inverter cooling)
R1T	Thermistor (Air)	Y2S	Solenoid valve (Liquid pipe)
R3T	Thermistor (Liquid main)	Y3S	Solenoid valve (HP/LP gas pipe)
R4T	Thermistor (Heat exch. liquid upper)	Y4S	Solenoid valve (Heat exchanger lower)
R5T	Thermistor (Heat exch. liquid lower)	Y5S	Solenoid valve (Heat exchanger upper)
R6T	Thermistor (Subcool heat exch. gas)	Y8S	Solenoid valve (Gas injection)
R7T	Thermistor (Subcool heat exch. liquid)	Y10S	Solenoid valve (Accu oil return)
R8T	Thermistor (Heat exch. gas upper)	Y11S	Solenoid valve (M1C oil return)
R9T	Thermistor (Heat exch. gas lower)	Y13S	# Error operation output (SVEO)
R10T	Thermistor (Suction)	Y14S	# Leak sensor output (SVS)
R11T	Thermistor (Heat exch. de-icer)	Z*C	Noise filter (ferrite core)
R12T	Thermistor (Suction compressor)		

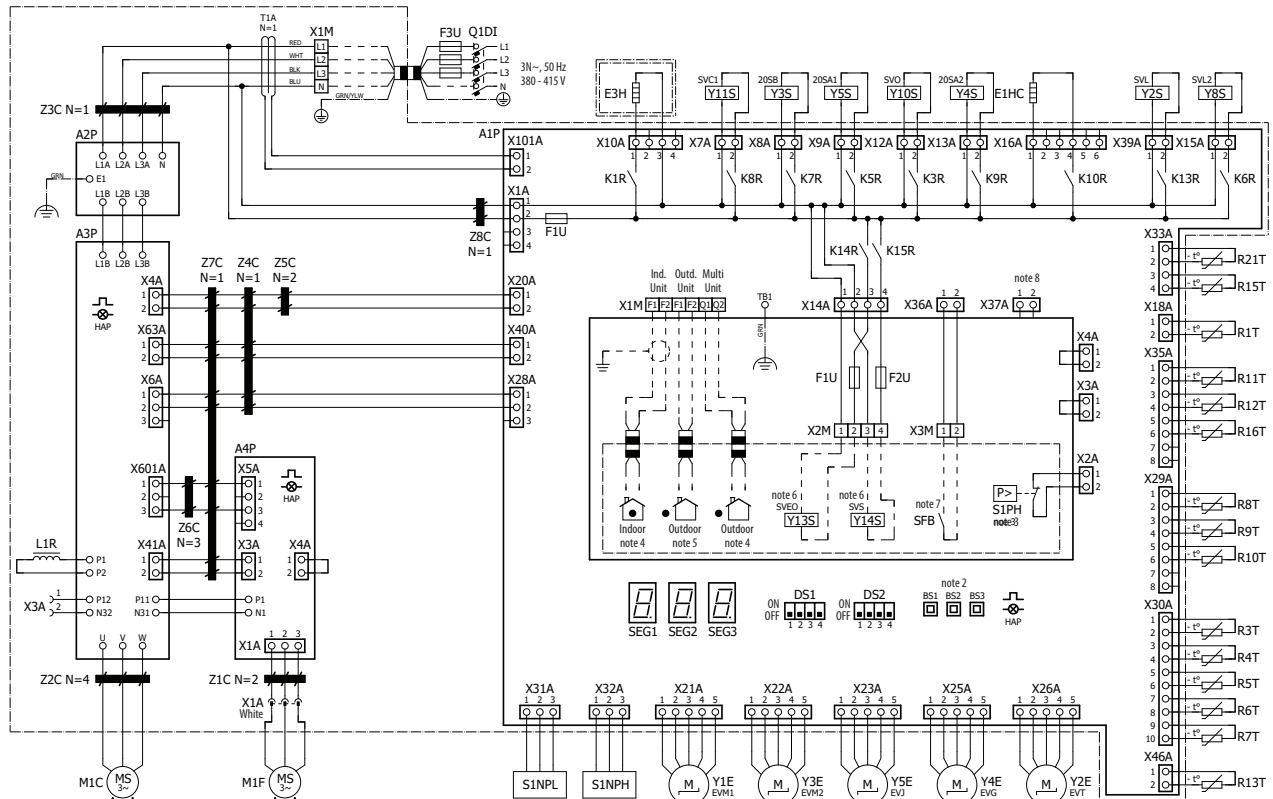
*: optional

#: field supply

4D138280A

REYA8-12A

REMA5A



4D138280A

9 Wiring diagrams

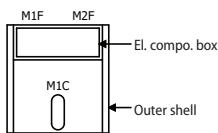
9 - 1 Wiring Diagrams - Three Phase

REYA14-20A

NOTES to go through before starting the unit

1. Symbols:
 - X1M : Main terminal
 - : Earth wiring
 - - - : Field wire
 - ▬ : Field cable
 - ⊖ : Screened conductor
 - ① : Several wiring possibilities
 - : Option
 - : Wiring depending on model
 - : Not mounted in switch box
 - : PCB
2. Refer to the installation or service manual on how to use BS1 ~ BS3 push buttons and DS1 ~ DS2 DIP switches.
3. Do not operate the unit by short-circuiting protection device S1PH.
4. Refer to the installation manual for indoor-outdoor transmission F1-F2 and outdoor-multi transmission Q1-Q2 wiring.
5. When using the central control system, connect outdoor-outdoor transmission F1-F2.
6. The capacity of the contact is 220~240V AC - 0.5A (Rush current needs 3A or less).
7. Use dry contact for low-current (10mA or less, 15V DC).
8. When using the optional adapter, refer to the installation manual of the optional adapter.

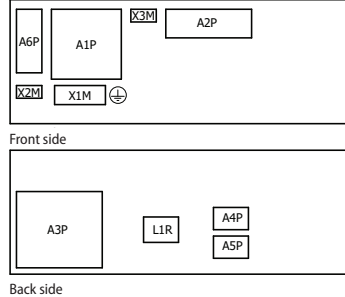
LAYOUT OF M1C, M1F, M2F



TERMINAL OF M1C



POSITION IN SWITCH BOX



LEGEND

Part n°	Description
A1P	Printed circuit board (main)
A2P	Printed circuit board (noise filter)
A3P	Printed circuit board (inverter)
A4P, A5P	Printed circuit board (fan)
A6P	Printed circuit board (sub)
BS* (A1P)	Push button switch
DS* (A1P)	Dipswitch
E1HC	Crank case heater
E3H	* Bottom plate heater
F1U (A1P)	Fuse T 10 A 250 V
F1U (A6P)	Fuse 3.15 A 250 V
F3U	# Field fuse
HAP (A1P)	Running LED (service monitor-green)
K*R (A*P)	Relay on PCB
L1R	Reactor
M1C	Motor (compressor)
M1F, M2F	Motor (fan)
Q1DI	# Earth leakage circuit breaker
R1T	Thermistor (Air)
R3T	Thermistor (Liquid main)
R4T	Thermistor (Heat exch. liquid upper)
R5T	Thermistor (Heat exch. liquid lower)
R6T	Thermistor (Subcool heat exch. gas)
R7T	Thermistor (Subcool heat exch. liquid)
R8T	Thermistor (Heat exch. gas upper)
R9T	Thermistor (Heat exch. gas lower)
R10T	Thermistor (Suction)
R11T	Thermistor (Heat exch. de-icer)
R12T	Thermistor (Suction compressor)

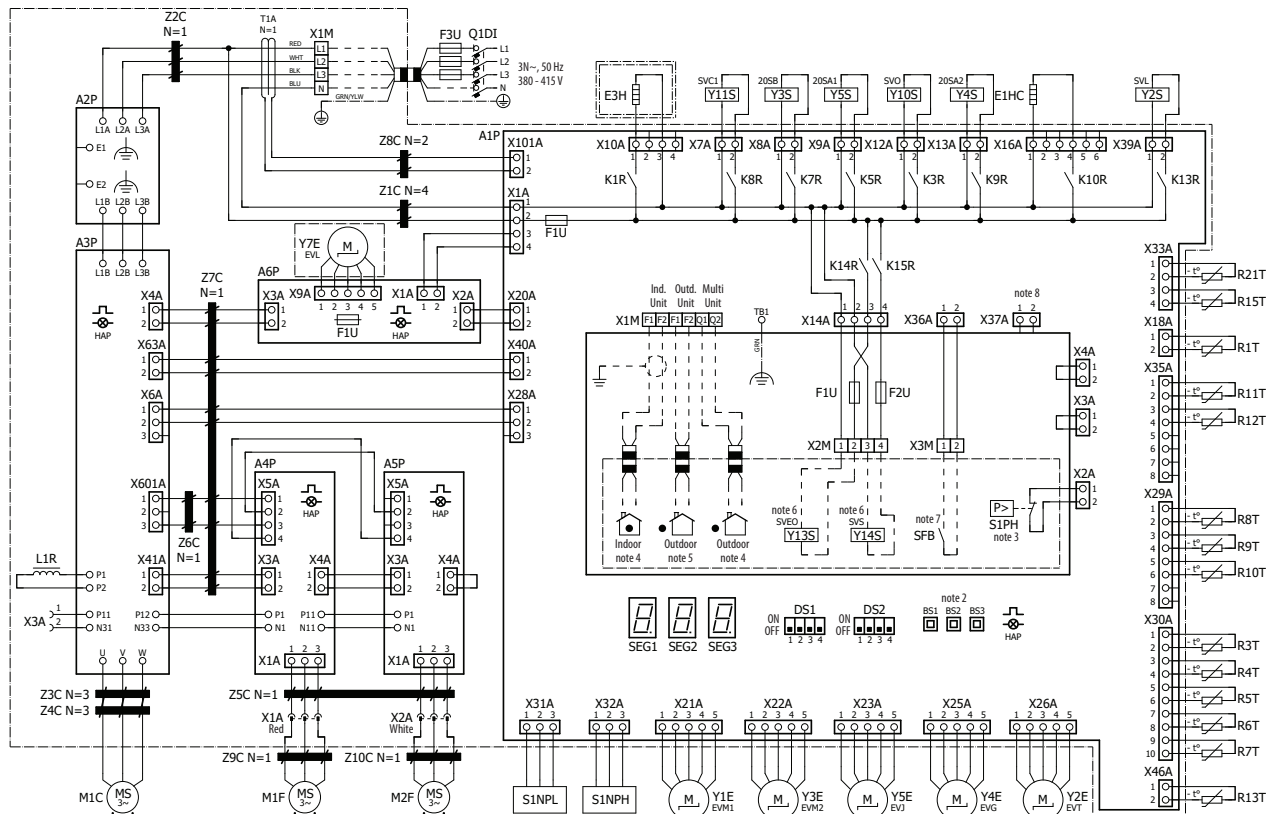
Part n°	Description
R13T	Thermistor (Receiver gas)
R15T	Thermistor (M1C body)
R21T	Thermistor (M1C discharge pipe)
S1NPH	High pressure sensor
S1NPL	Low pressure sensor
S1PH	High pressure switch
SEG* (A1P)	7-segment display
SFB	# Mechanical ventilation error input
T1A	Current sensor
X*A	Connector
X*M	Terminal strip
Y1E	Electronic exp. valve (Heat exch. upper)
Y2E	Electronic exp. valve (Subc. heat exch.)
Y3E	Electronic exp. valve (Heat exch. lower)
Y4E	Electronic exp. valve (Receiver gas)
Y5E	Electronic exp. valve (Inverter cooling)
Y7E	Electronic exp. valve (Liquid injection)
Y2S	Solenoid valve (Liquid pipe)
Y3S	Solenoid valve (HP/LP gas pipe)
Y4S	Solenoid valve (Heat exchanger lower)
Y5S	Solenoid valve (Heat exchanger upper)
Y10S	Solenoid valve (Accu oil return)
Y11S	Solenoid valve (M1C oil return)
Y13S	# Error operation output (SVEO)
Y14S	# Leak sensor output (SVS)
Z*C	Noise filter (ferrite core)

*: optional

#: field supply

4D138281A

REYA14-20A



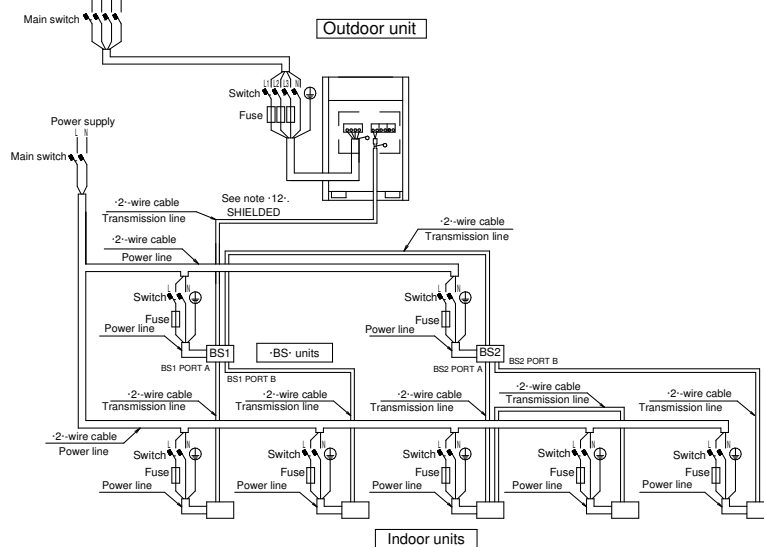
4D138281A

10 External connection diagrams

10 - 1 External Connection Diagrams

REYA-A
REMA5A

VRV5
Heat recovery
External connection diagram



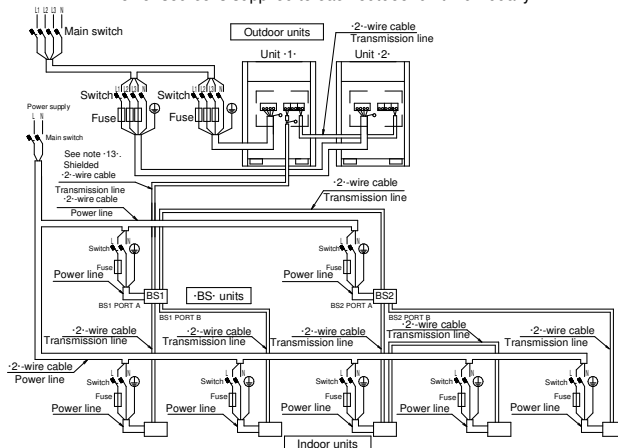
1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipment.
9. Install a main to switch to (if necessary) immediately interrupt all the system's power sources.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.
12. See outdoor unit manual for shielding the ·F1F2· wire

3D138298

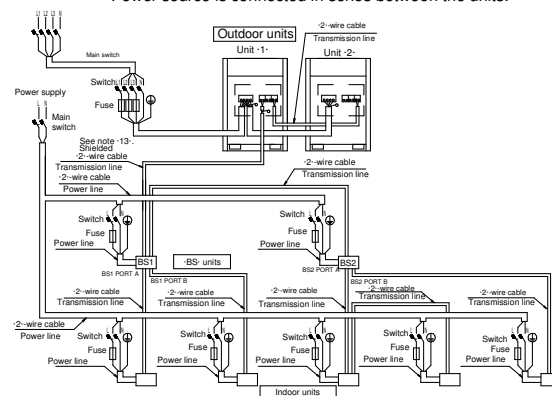
REYA-A
REMA5A

VRV5 Heat recovery
External connection diagram

Power source is supplied to each outdoor unit individually.



Power source is connected in series between the units.



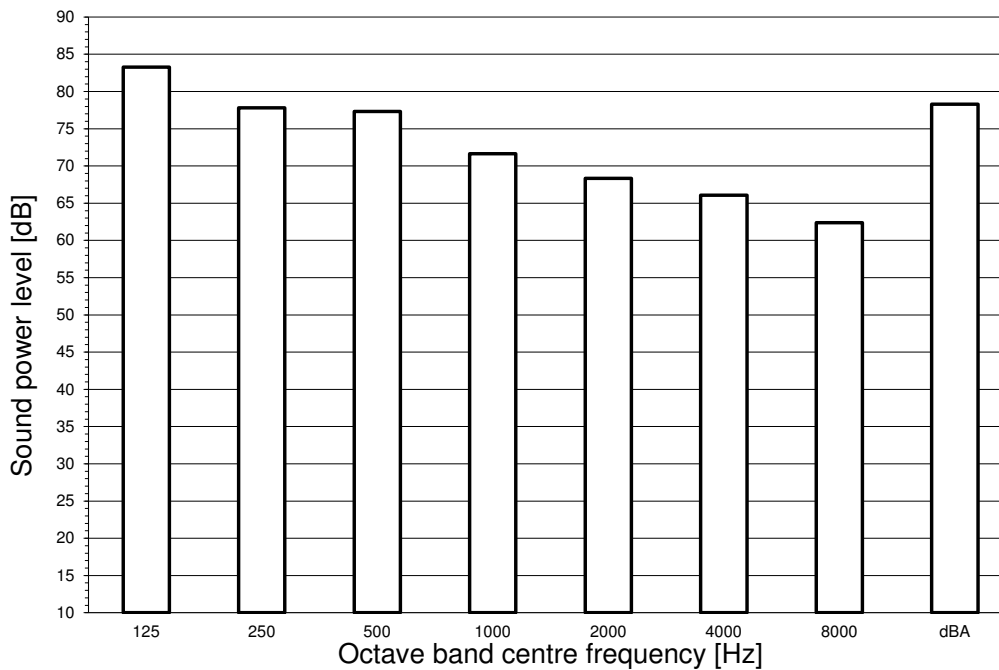
1. All wiring, components and materials to be procured on-site must comply with the applicable legislation.
2. Use copper conductors only
3. For more details, refer to the wiring diagram of the unit.
4. Install a circuit breaker for safety.
5. All field wiring and components must be provided by an authorised electrician.
6. Unit has to be grounded in compliance with the applicable legislation.
7. The wiring shown is a general points-of-connection guide and is not intended to include all details for a specific installation.
8. Make sure to install the switch and the fuse to the power line of each equipment.
9. Install a main to switch to (if necessary) immediately interrupt all the system's power sources.
10. If there exists the possibility of reversed phase, loose phase or momentary blackout, or if the power goes on and off while the product is operating, attach a reversed phase protection circuit locally.
Running the product in reversed phase may break the compressor and other parts.
11. Install an earth leakage circuit breaker.
12. The capacity of UNIT1 must be larger than that of UNIT2 when the power source is connected in series between the units.
13. See outdoor unit manual for shielding the ·F1F2· wire

3D141220

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

REYA8A
REMA5A

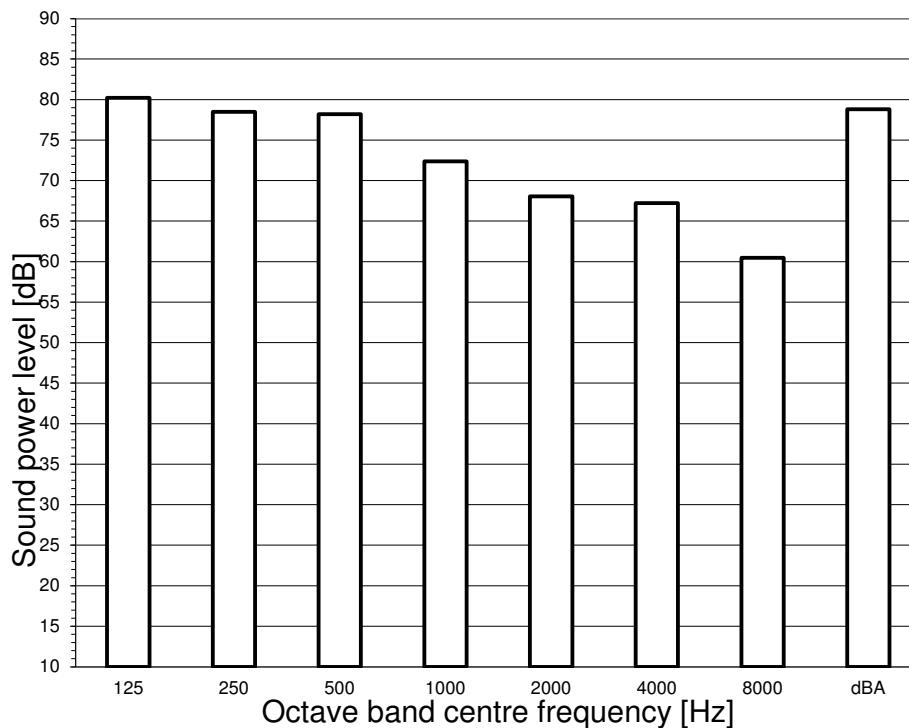


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = $\cdot 10^{-12}$ W
- Measured according to ISO 3744

4D138299

REYA10A



Notes

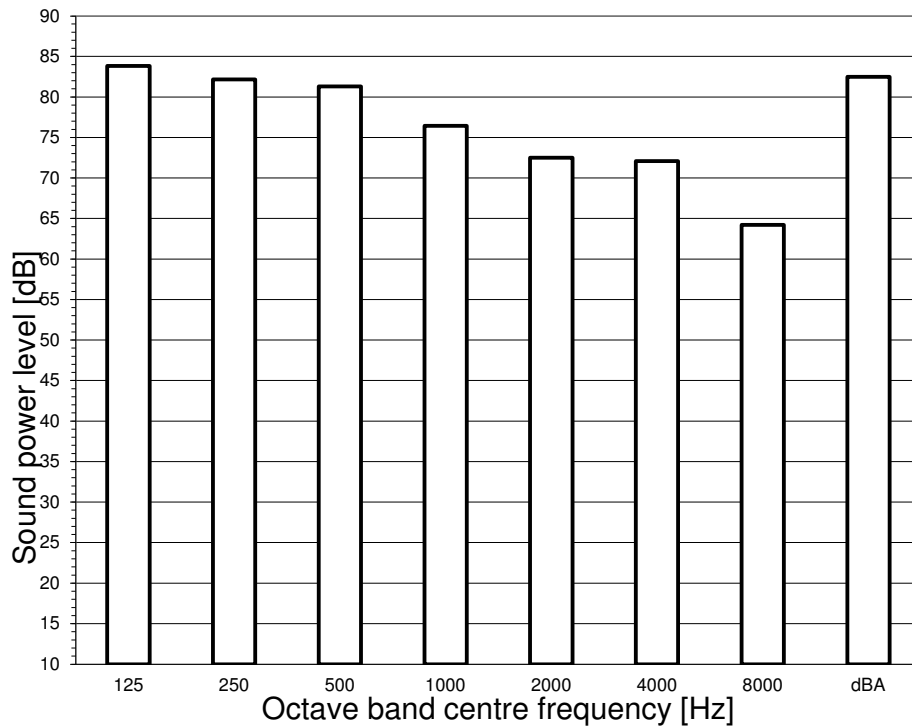
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = $\cdot 10^{-12}$ W
- Measured according to ISO 3744

4D141170

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

REYA12A

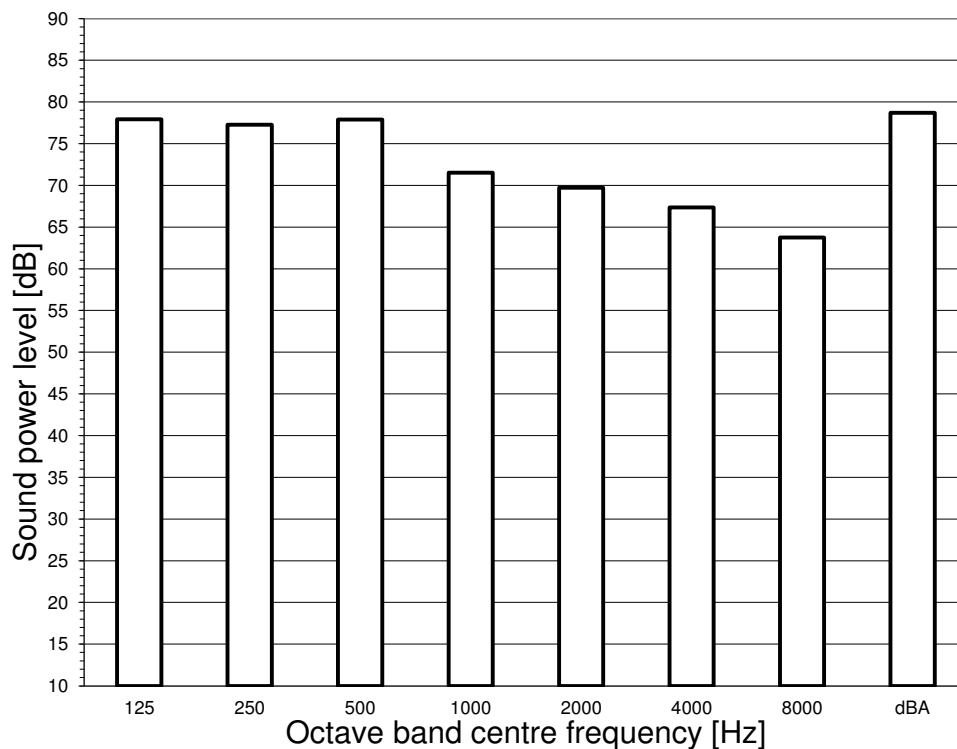


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

4D141171

REYA14A



Notes

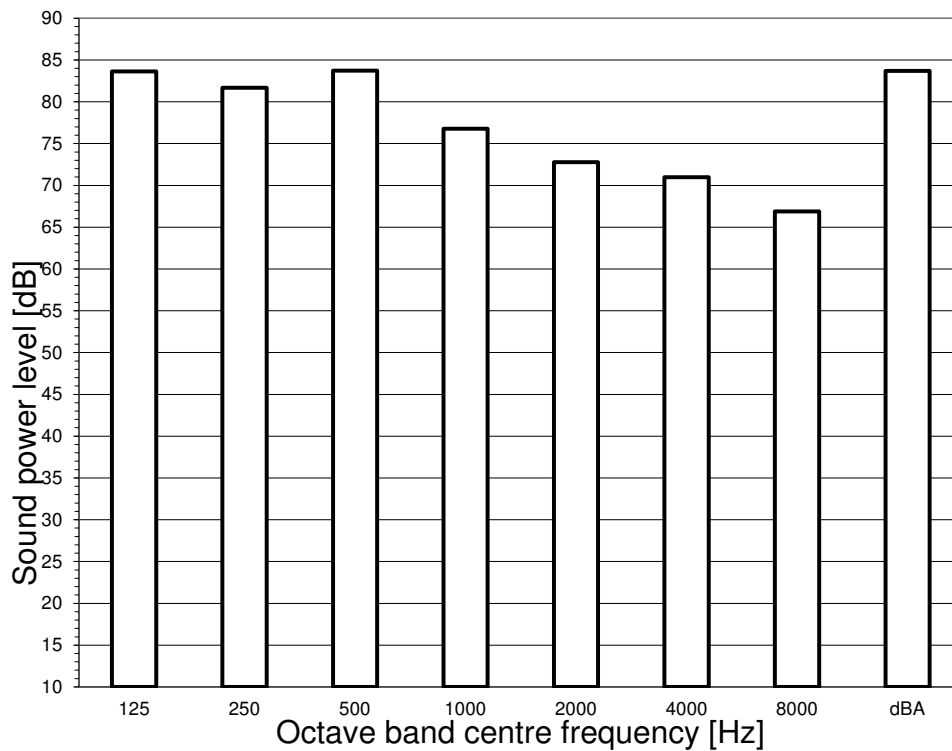
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

4D141172

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

REYA16A

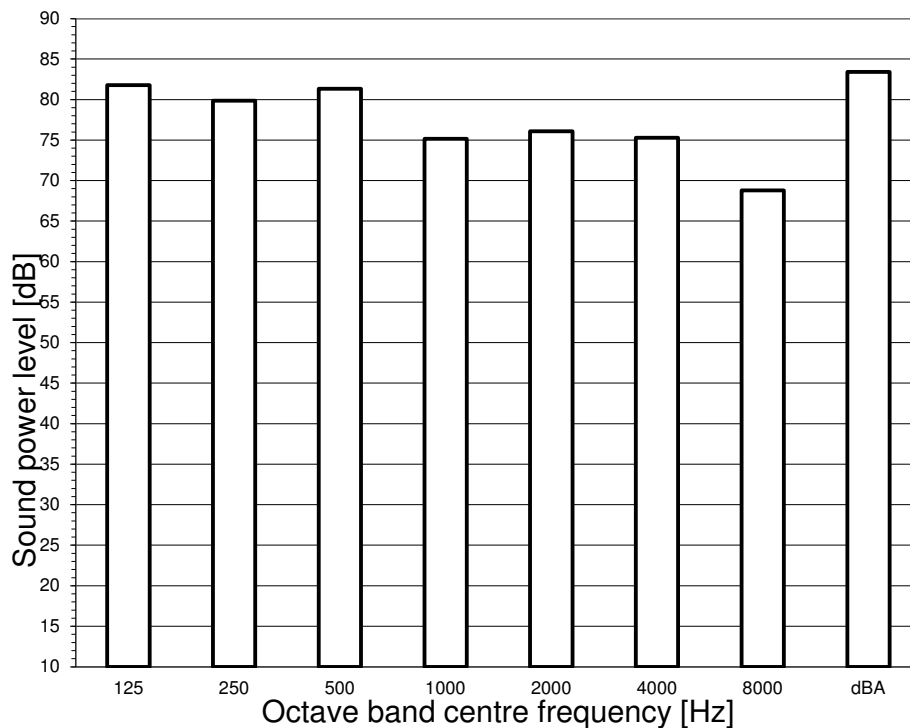


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

4D141173

REYA18A



Notes

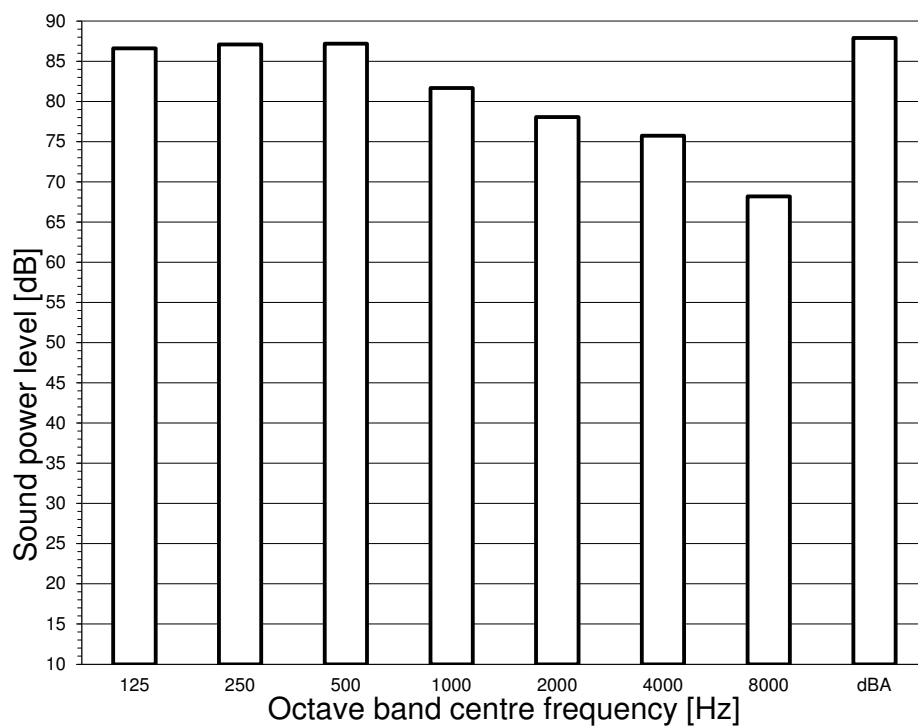
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

4D141174

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

REYA20A



Notes

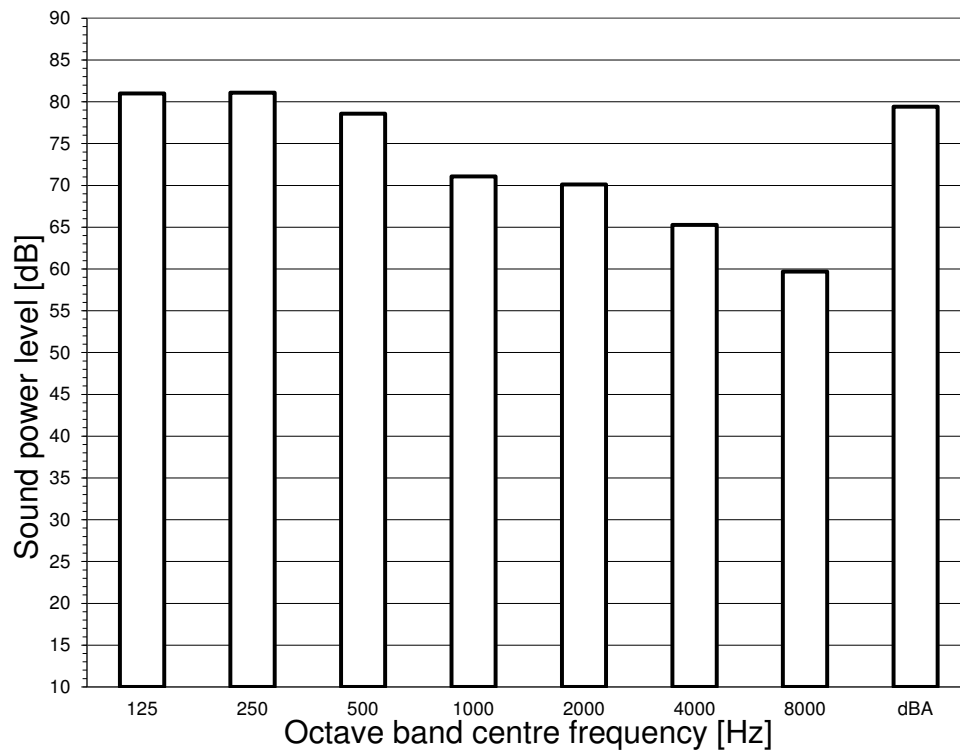
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

4D141175

11 Sound data

11 - 2 Sound Power Spectrum - Heating

REYA8A
REMA5A

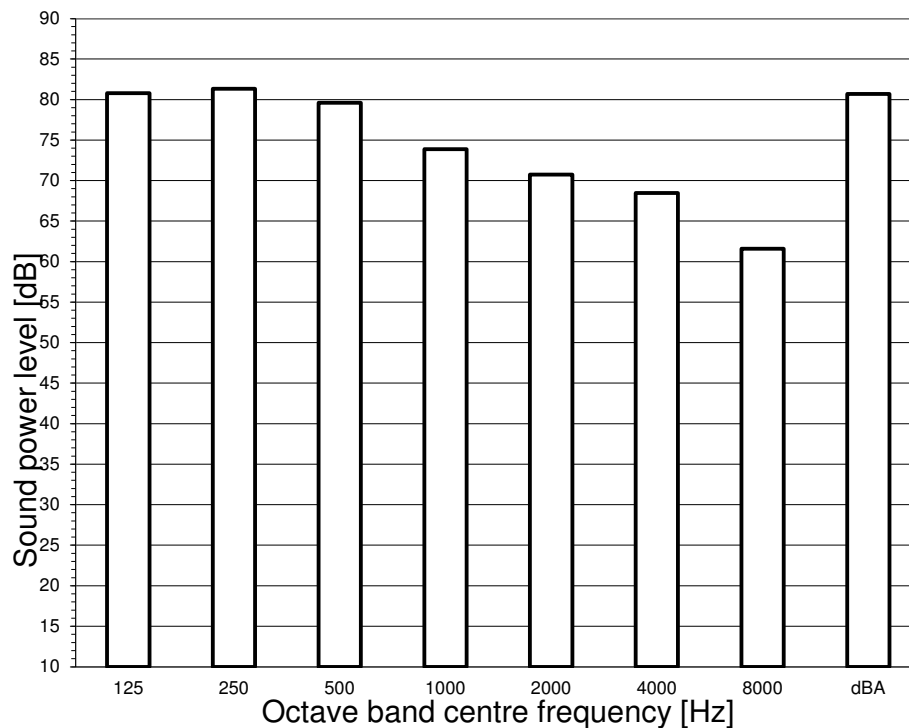


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity $0\text{dB} = 10^{-12} \text{ W}$.
- Measured according to ISO 3744

4D138299

REYA10A



Notes

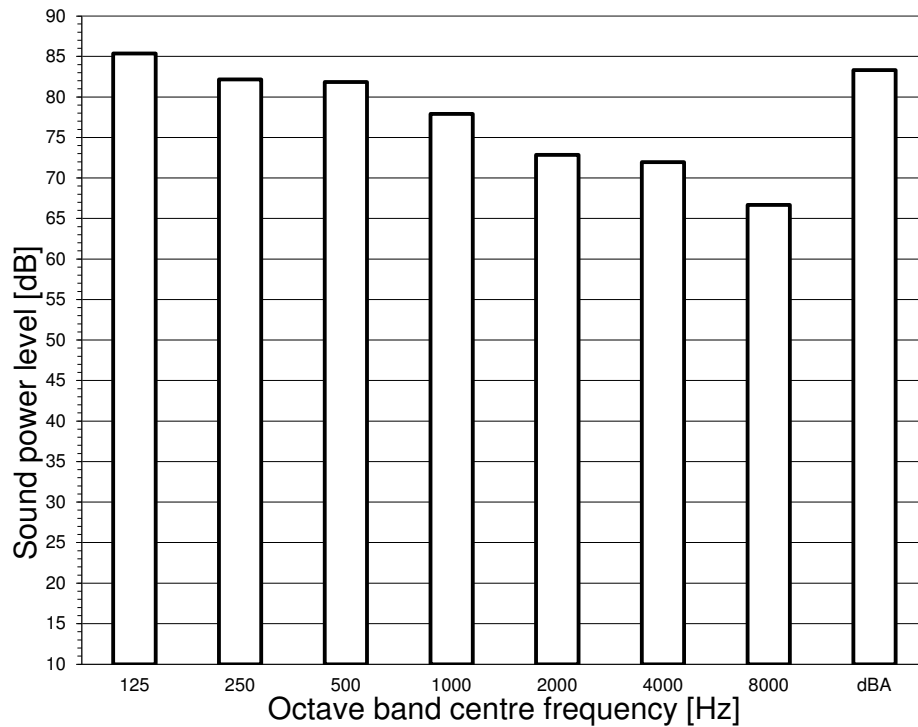
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity $0\text{dB} = 10^{-12} \text{ W}$.
- Measured according to ISO 3744

4D141170

11 Sound data

11 - 2 Sound Power Spectrum - Heating

REYA12A

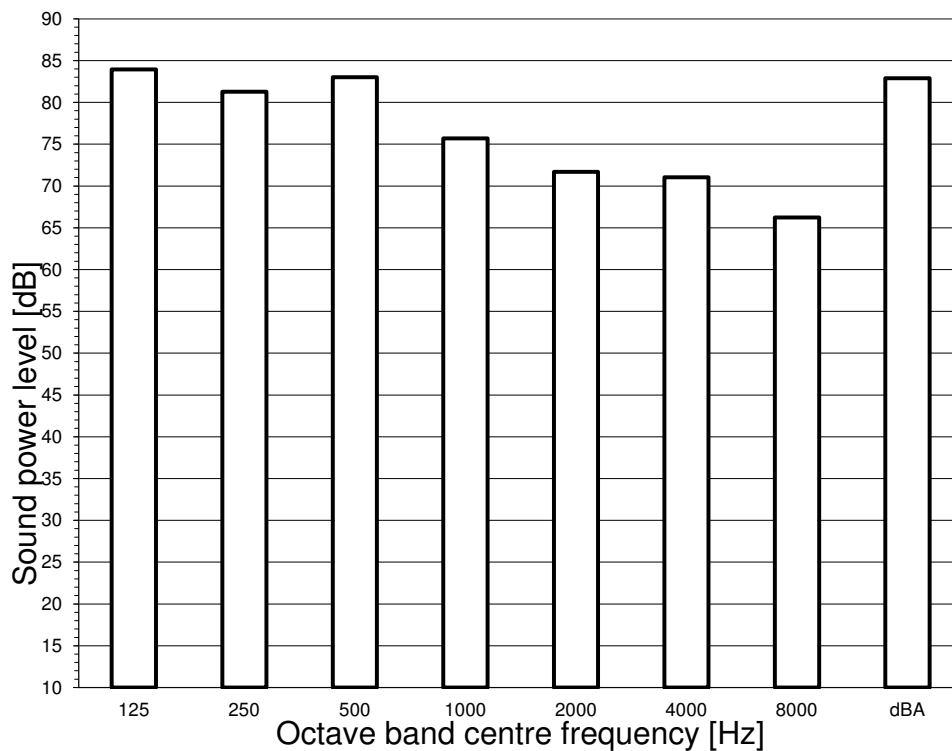


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W
- Measured according to ISO 3744

4D141171

REYA14A



Notes

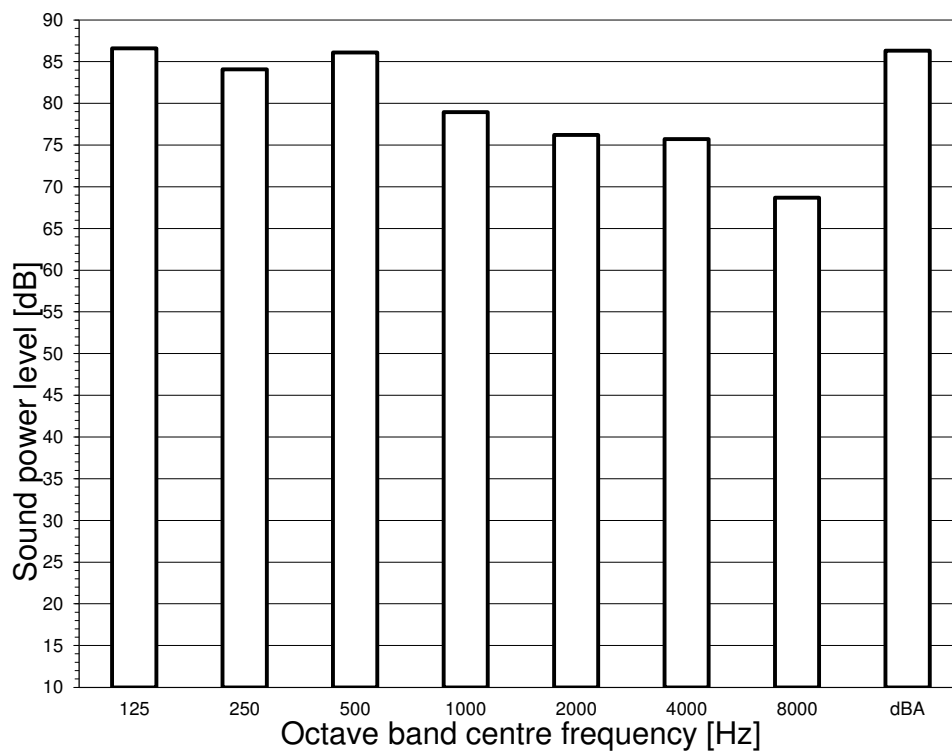
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W
- Measured according to ISO 3744

4D141172

11 Sound data

11 - 2 Sound Power Spectrum - Heating

REYA16A

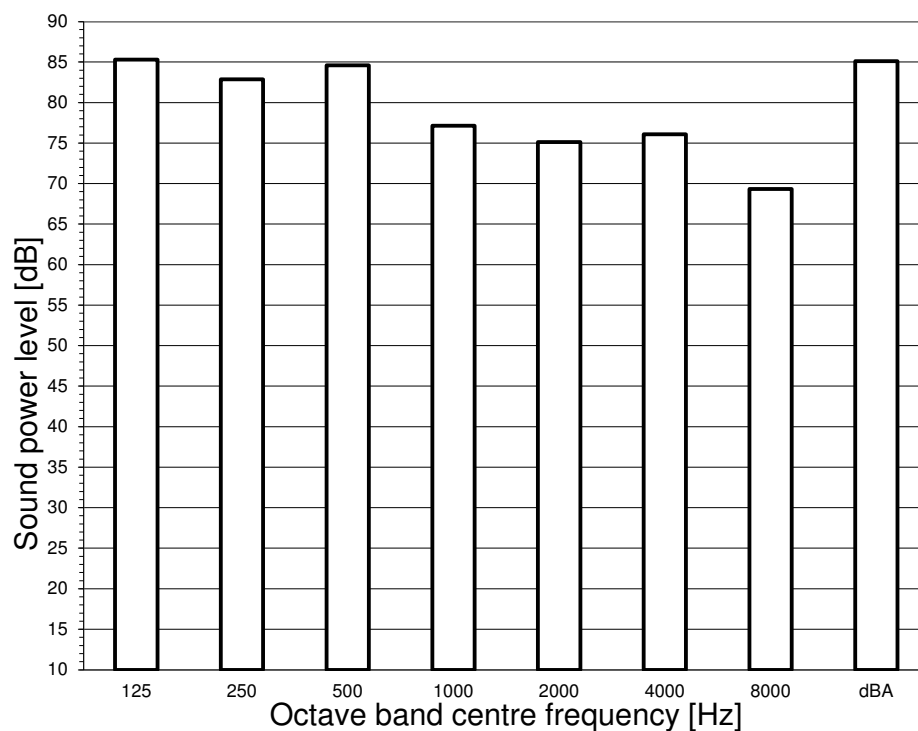


Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = $\cdot 10^{-12}$ W.
- Measured according to ISO 3744

4D141173

REYA18A



Notes

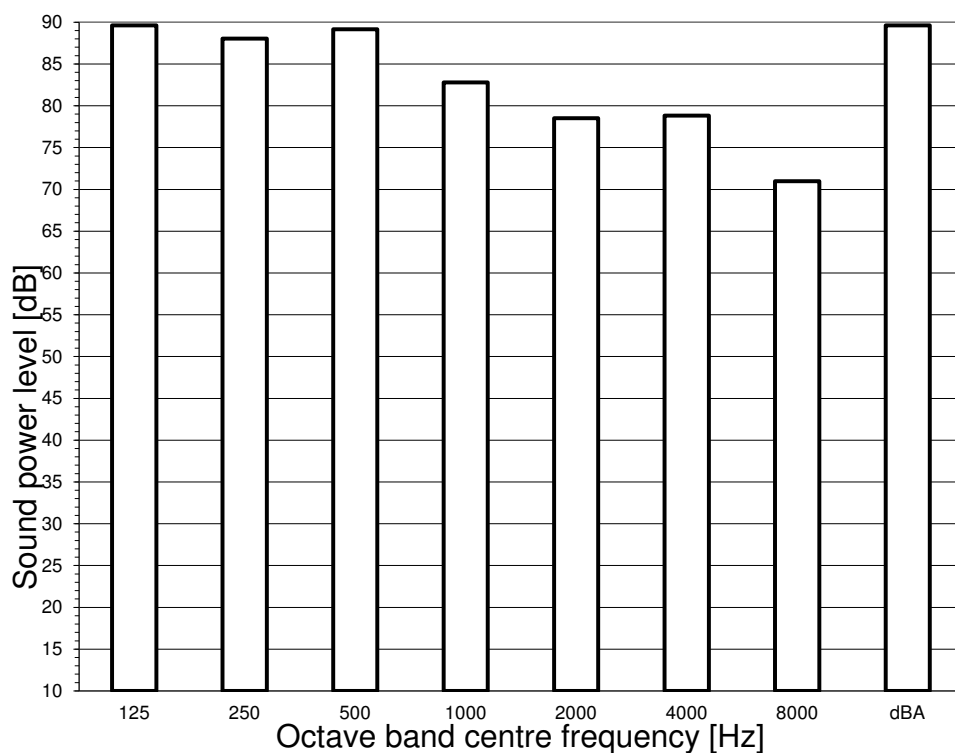
- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = $\cdot 10^{-12}$ W.
- Measured according to ISO 3744

4D141174

11 Sound data

11 - 2 Sound Power Spectrum - Heating

REYA20A



Notes

- dBA = A-weighted sound power level (A scale according to IEC).
- Reference acoustic intensity 0dB = 10^{-12} W.
- Measured according to ISO 3744

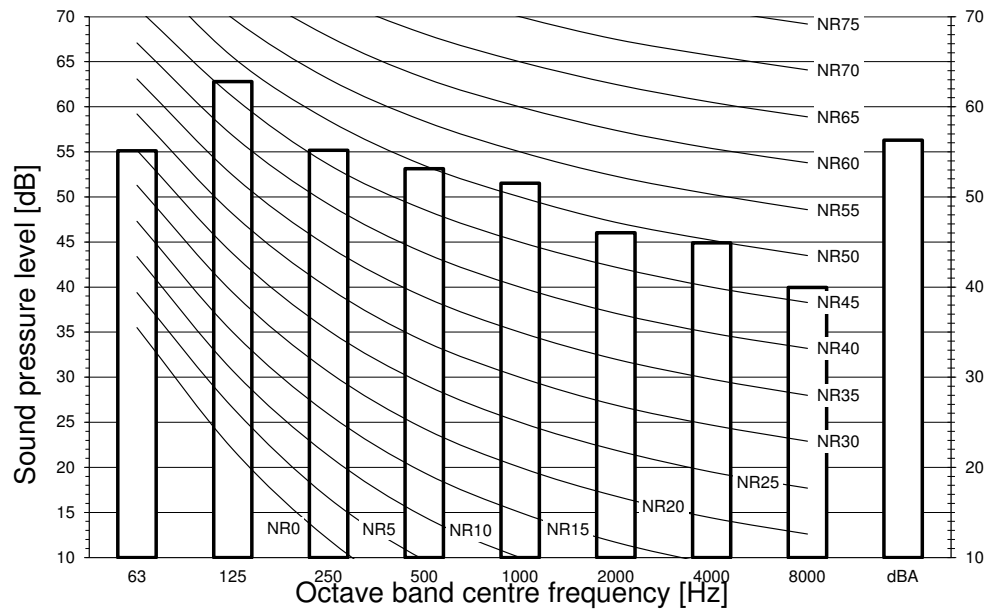
4D141175

11 Sound data

11 - 3 Sound Pressure Spectrum - Cooling

REYA8A
REMA5A

11

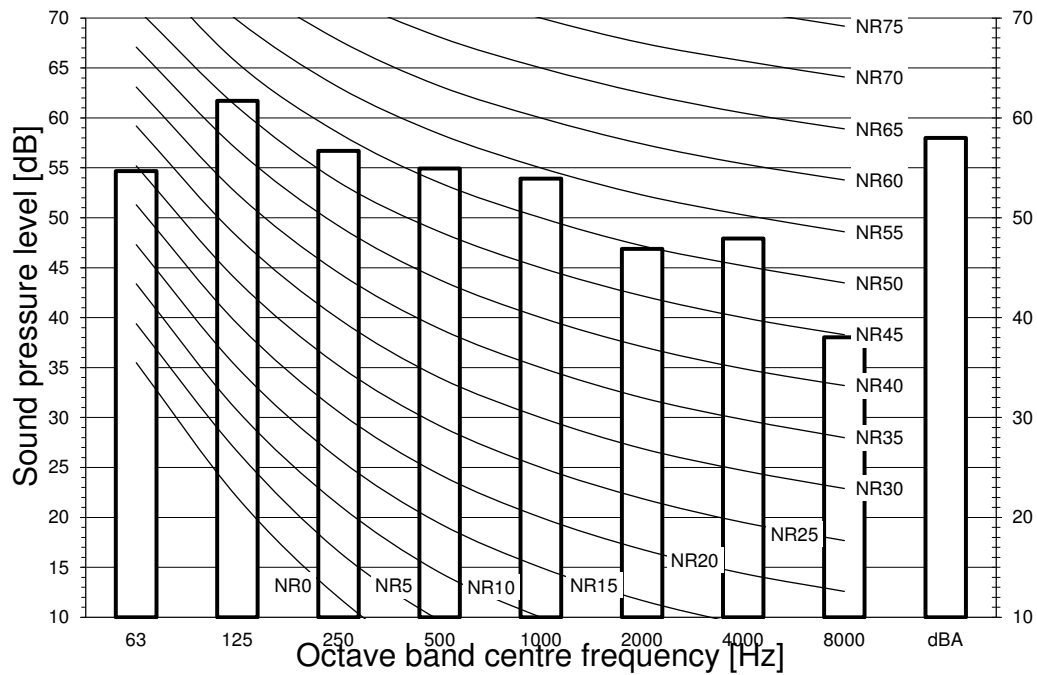


Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

4D138299

REYA10A



Notes

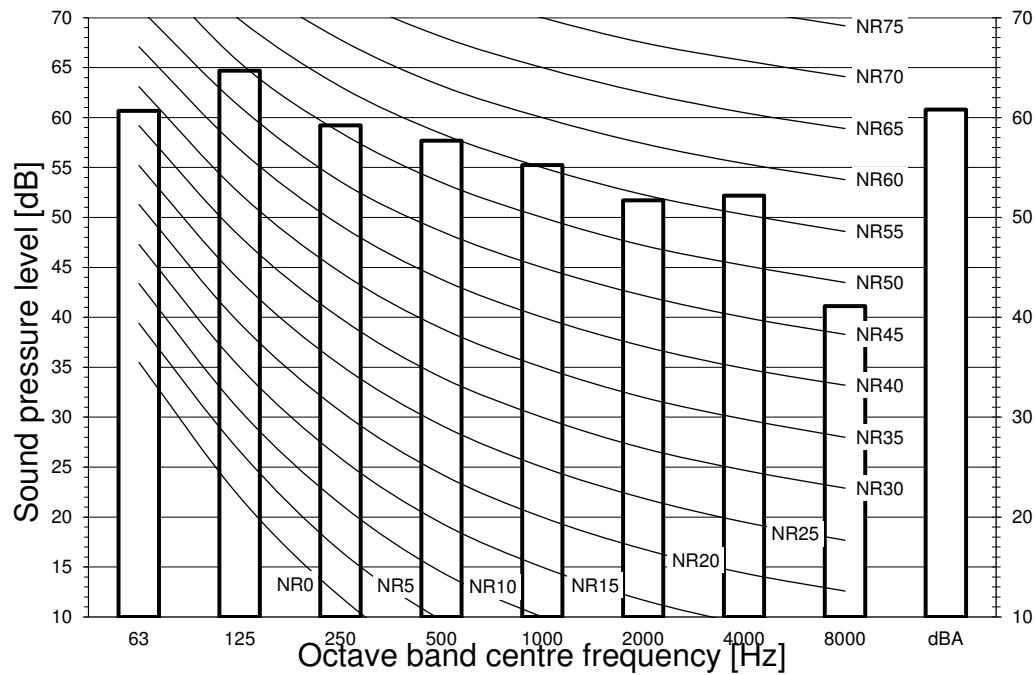
- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

4D141170

11 Sound data

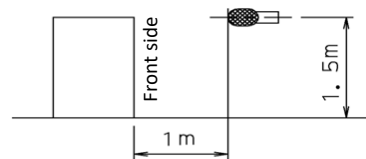
11 - 3 Sound Pressure Spectrum - Cooling

REYA12A



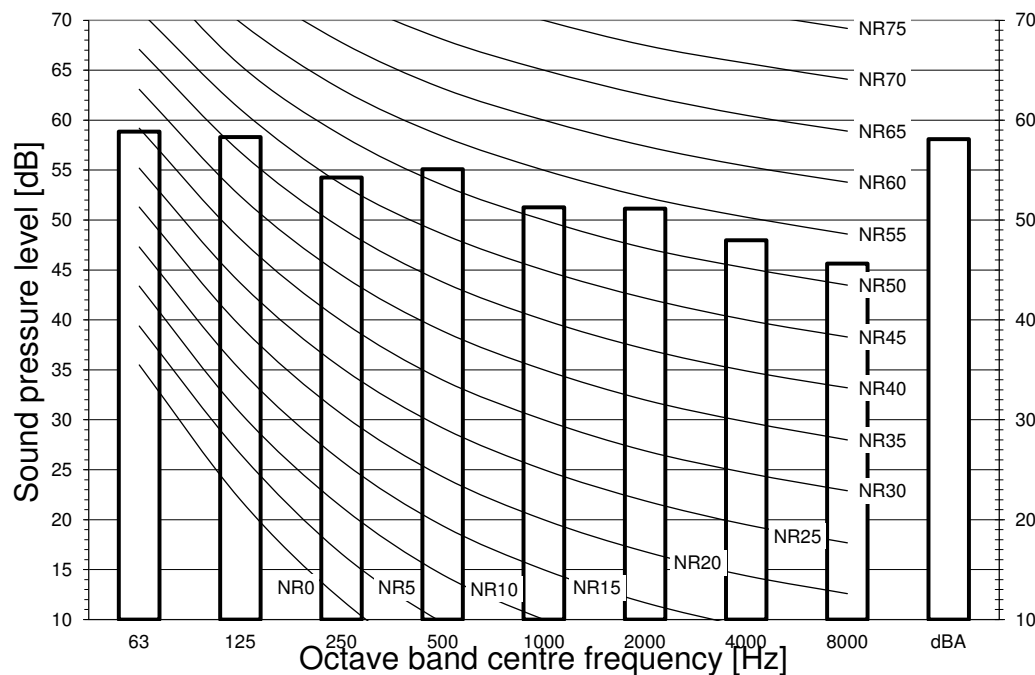
Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



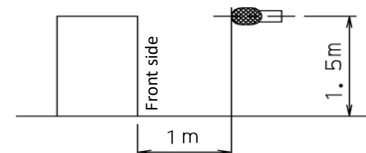
4D141171

REYA14A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

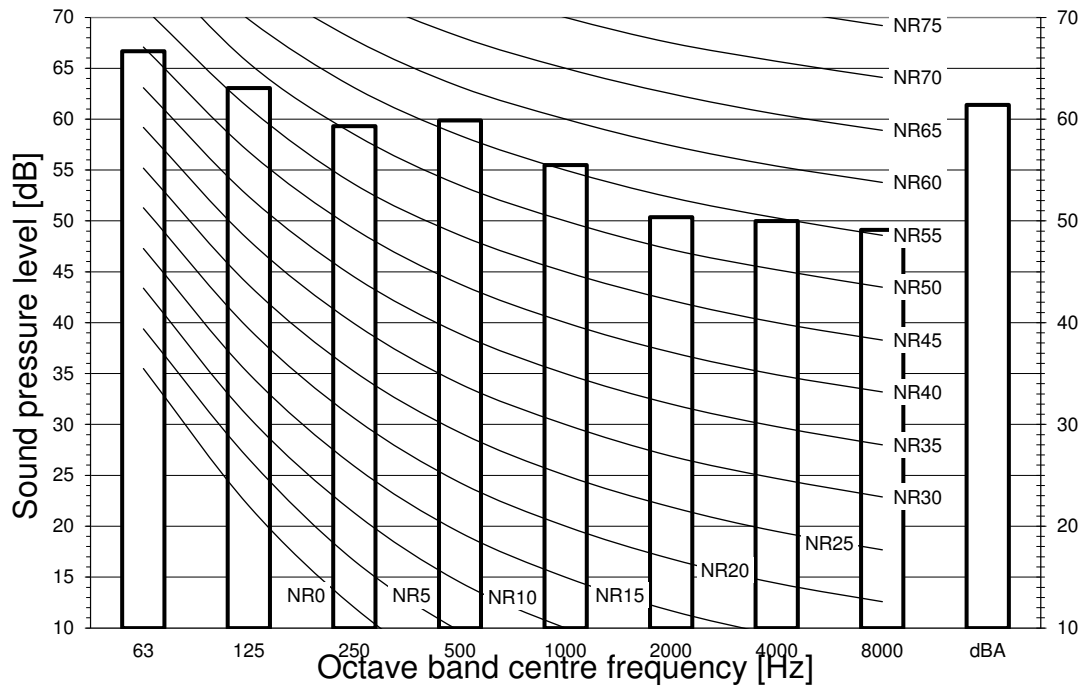


4D141172

11 Sound data

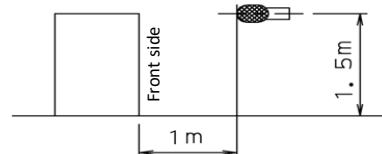
11 - 3 Sound Pressure Spectrum - Cooling

REYA16A



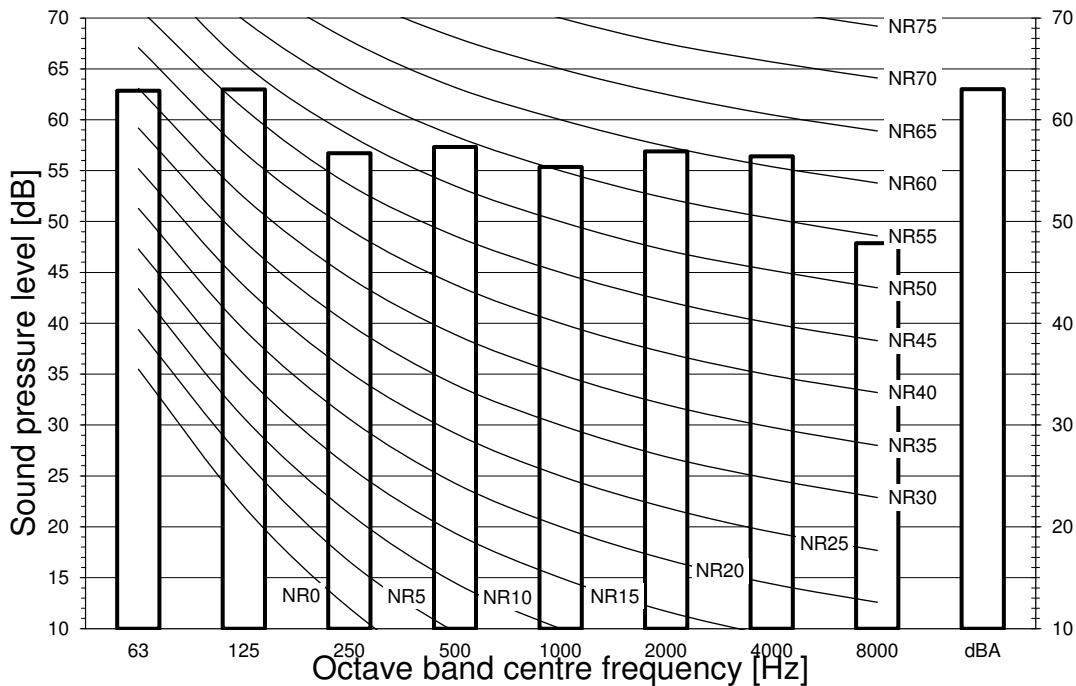
Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



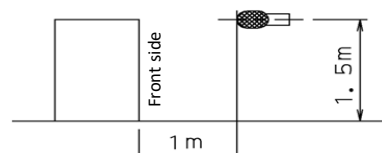
4D141173

REYA18A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

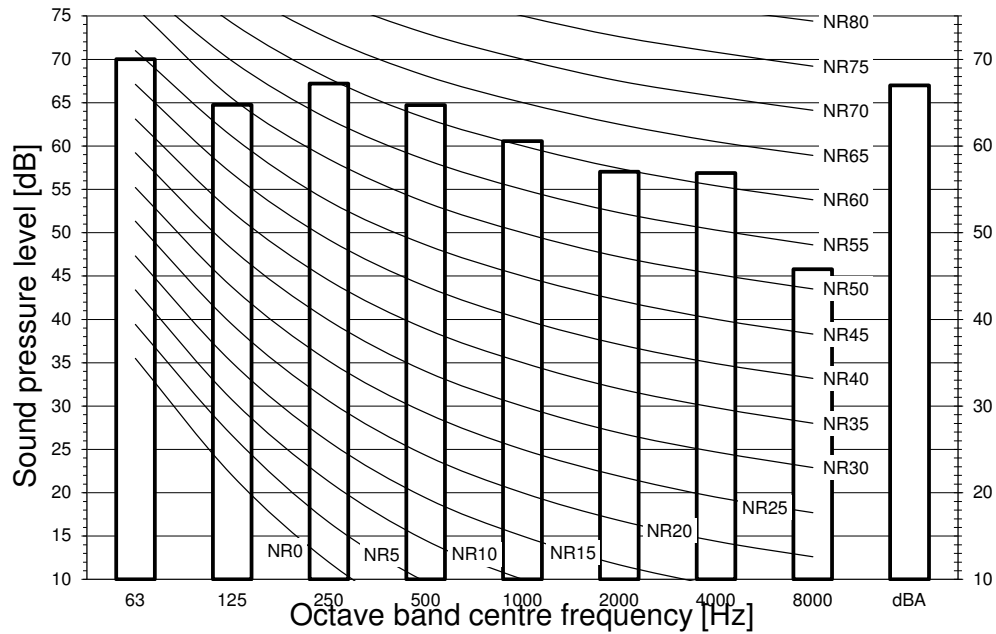


4D141174

11 Sound data

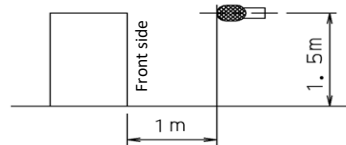
11 - 3 Sound Pressure Spectrum - Cooling

REYA20A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

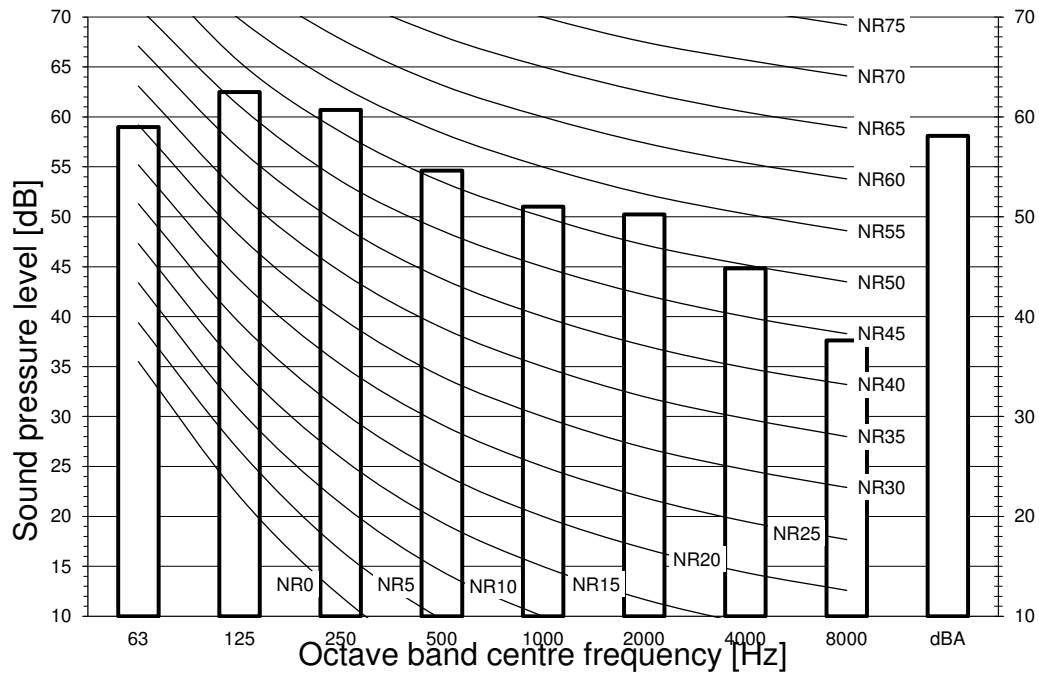


4D141175

11 Sound data

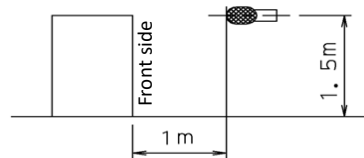
11 - 4 Sound Pressure Spectrum - Heating

REMA5A
REYA8A



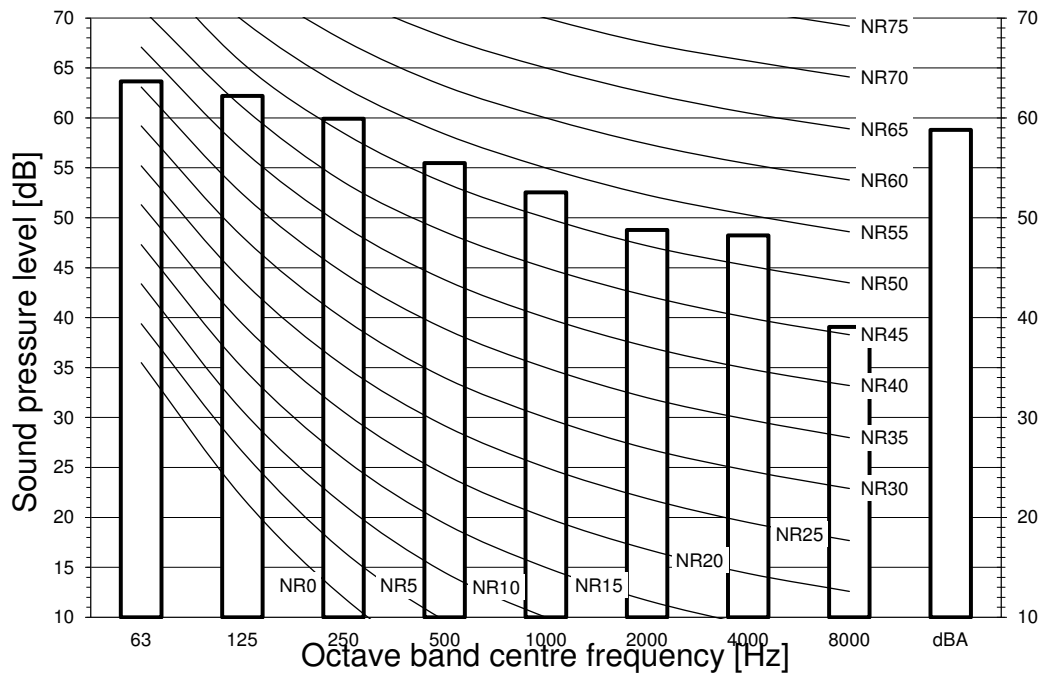
Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



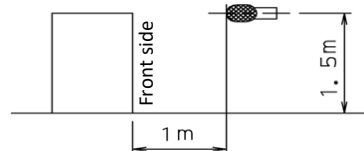
4D138299

REYA10A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

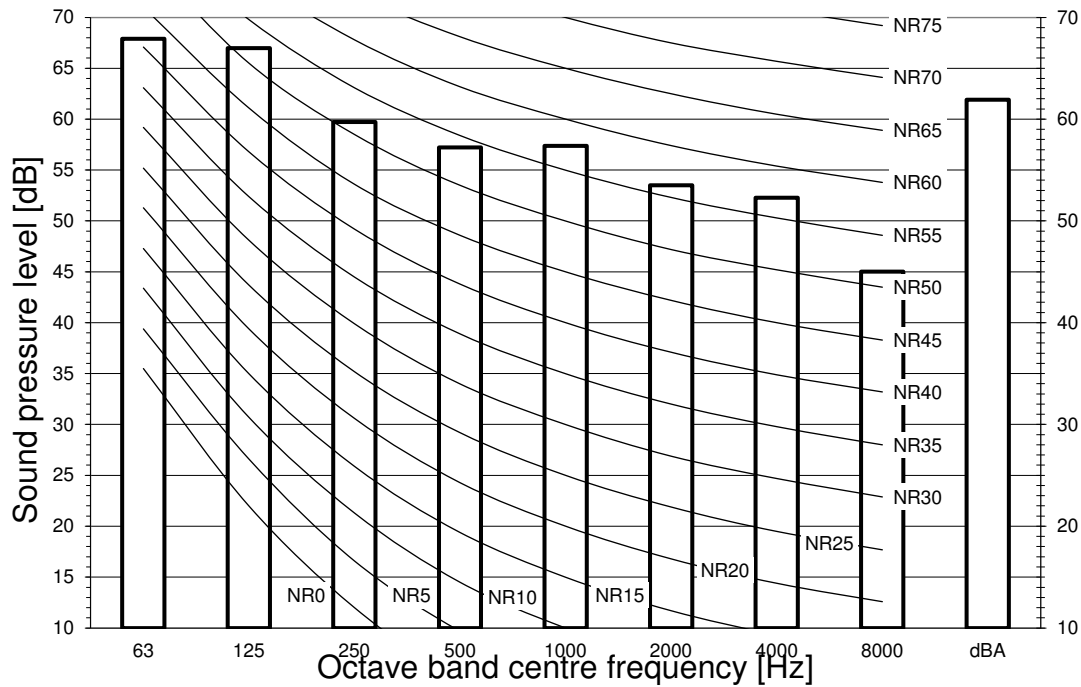


4D141170

11 Sound data

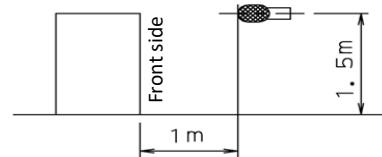
11 - 4 Sound Pressure Spectrum - Heating

REYA12A



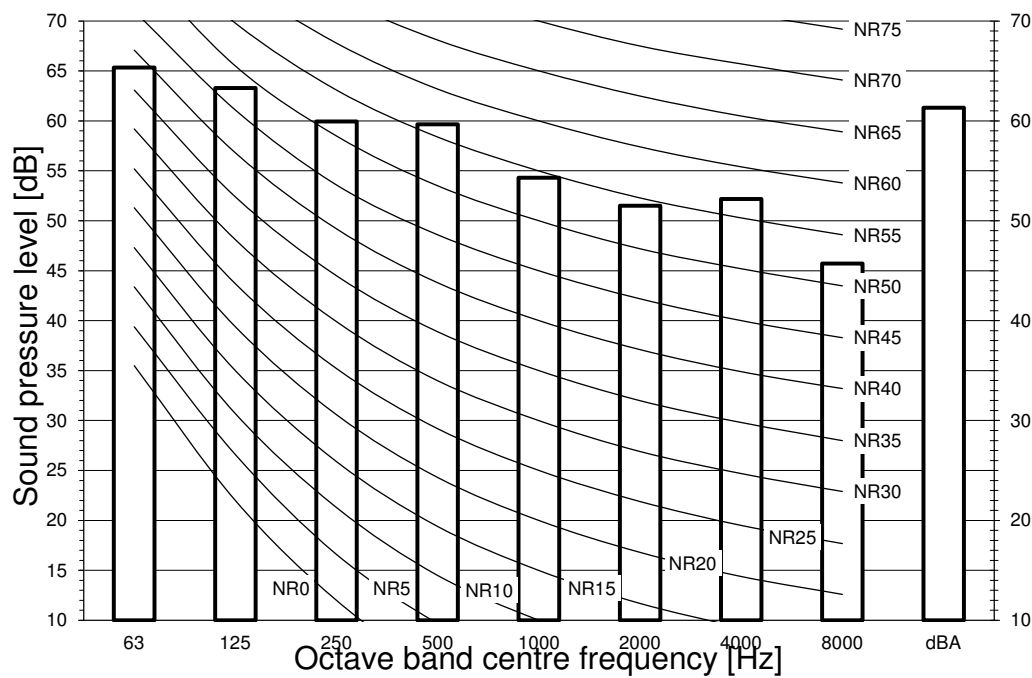
Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



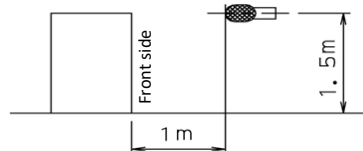
4D141171

REYA14A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

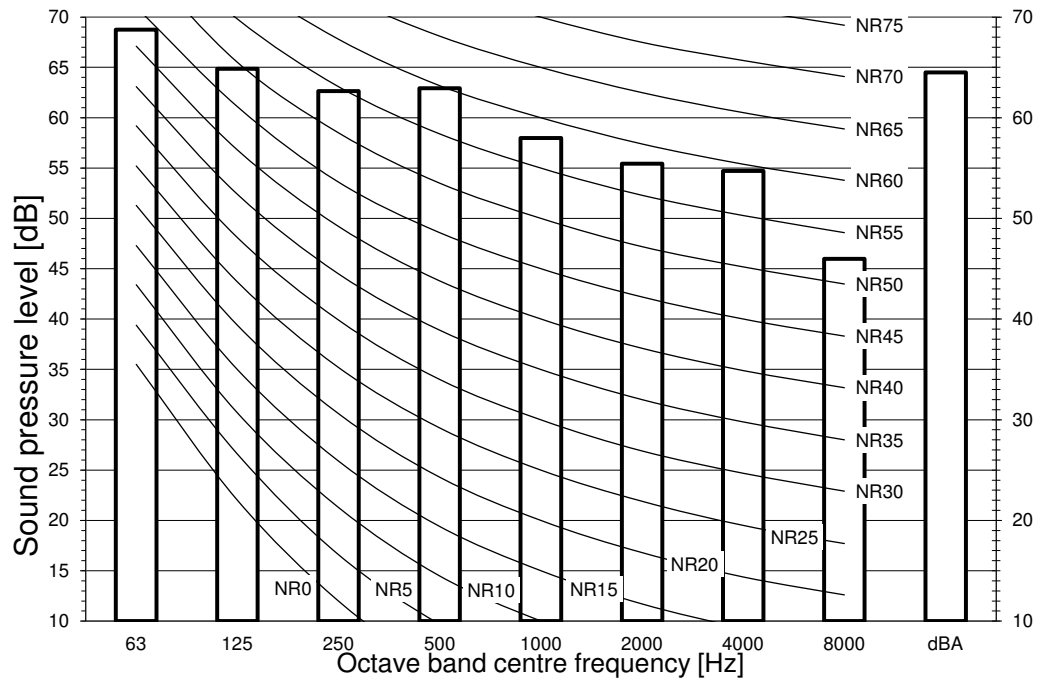


4D141172

11 Sound data

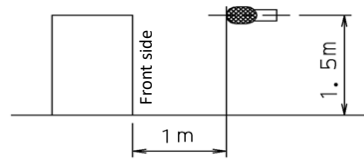
11 - 4 Sound Pressure Spectrum - Heating

REYA16A



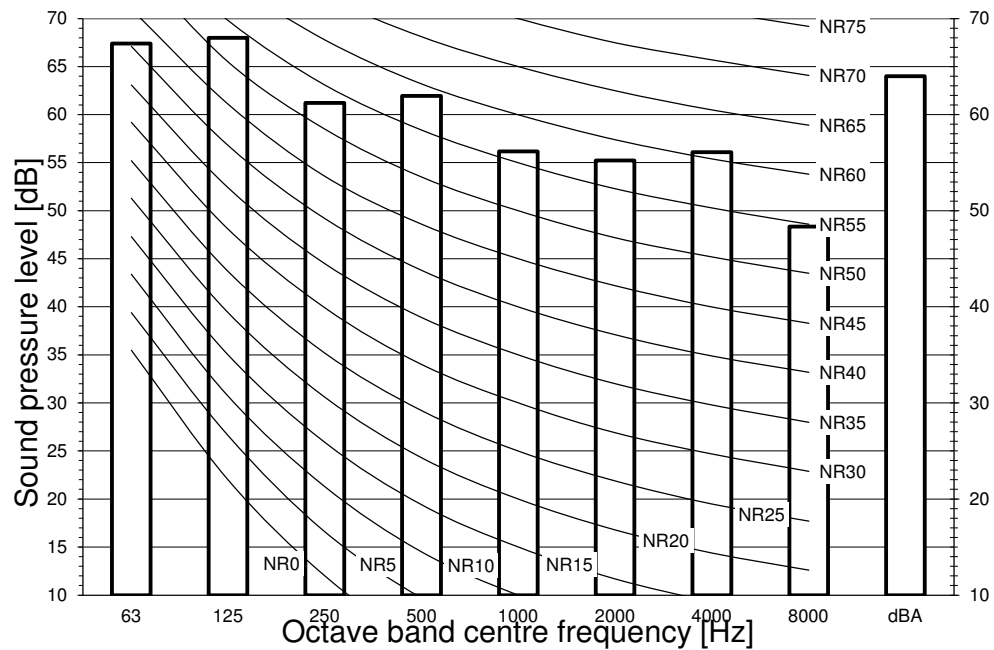
Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



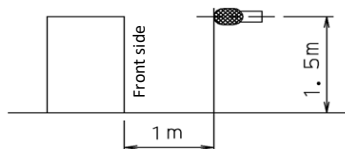
4D141173

REYA18A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa

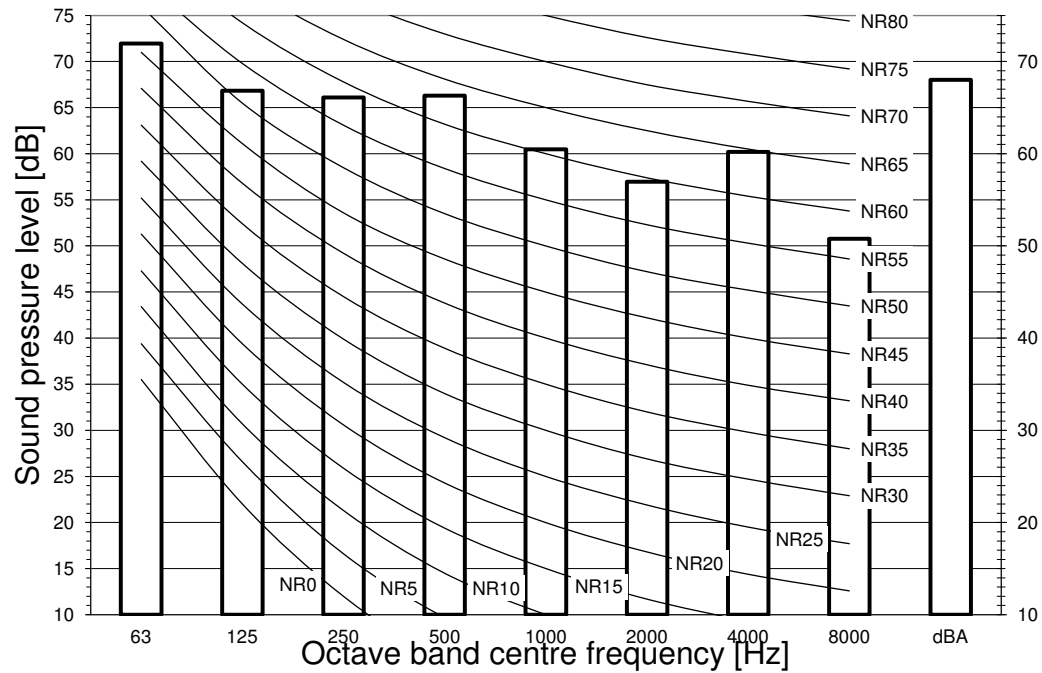


4D141174

11 Sound data

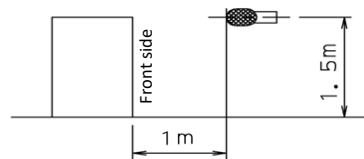
11 - 4 Sound Pressure Spectrum - Heating

REYA20A



Notes

- Data is valid at free field condition.
- Data is valid at nominal operation condition.
- dBA = A-weighted sound pressure level (A scale according to IEC).
- Reference acoustic pressure 0 dB = 20 μ Pa



4D141175

11 Sound data

11 - 5 Sound level data Quiet mode

REYA-A
REMA5A

11

VRV-5 Heat recovery
Low noise data (level ·1-5·)

	Capacity ratio
LN1	90%
LN2	75%
LN3	60%
LN4	45%
LN5	30%

5HP/ 8HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	75	53	76	55
LN2	72	50	73	52
LN3	69	47	70	49
LN4	66	44	67	46
LN5	63	41	64	43

10HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	76	55	78	56
LN2	73	52	75	53
LN3	70	49	72	50
LN4	67	46	69	47
LN5	64	43	66	44

12HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	79	58	80	58
LN2	76	55	77	55
LN3	73	52	74	52
LN4	70	49	71	49
LN5	67	46	68	46

14HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	76	53	81	58
LN2	73	50	78	55
LN3	70	47	75	52
LN4	67	44	72	49
LN5	64	41	69	46

16HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	81	58	84	62
LN2	78	55	82	59
LN3	75	52	80	56
LN4	72	49	77	53
LN5	69	46	74	50

4D141207

11 Sound data

11 - 5 Sound level data Quiet mode

REYA-A
REMA5A

18HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	81	60	83	61
LN2	78	57	81	58
LN3	76	54	78	55
LN4	74	51	75	52
LN5	71	48	72	49

20HP	Cooling		Heating	
	Sound power [dBA]	Sound pressure [dBA]	Sound power [dBA]	Sound pressure [dBA]
LN1	85	64	87	65
LN2	82	61	84	62
LN3	80	58	81	59
LN4	77	55	79	56
LN5	74	52	77	53

LN1: Low noise level ·1·
LN2: Low noise level ·2·
LN3: Low noise level ·3·
LN4: Low noise level ·4·
LN5: Low noise level ·5·

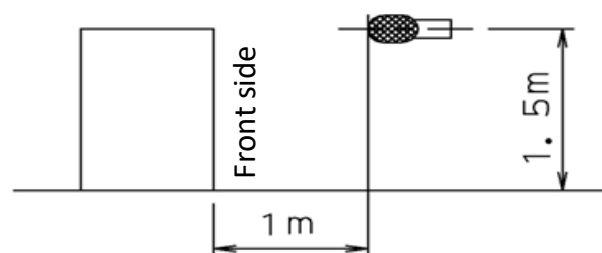
Notes

Sound power

dBA = A-weighted sound power level (A scale according to IEC).
Reference acoustic intensity $0\text{ dB} = 10^{-12} \text{ W}$.
Measured according to ISO 3744

sound pressure

Data is valid at free field condition.
Data is valid at nominal operation condition.
dBA = A-weighted sound pressure level (A scale according to IEC).
Reference acoustic pressure $0 \text{ dB} = 20 \mu\text{Pa}$



4D141207

11 Sound data

11 - 6 Sound power level at high ESP

REYA-A
REMA5A

11

VRV-5 Heat recovery
High ESP

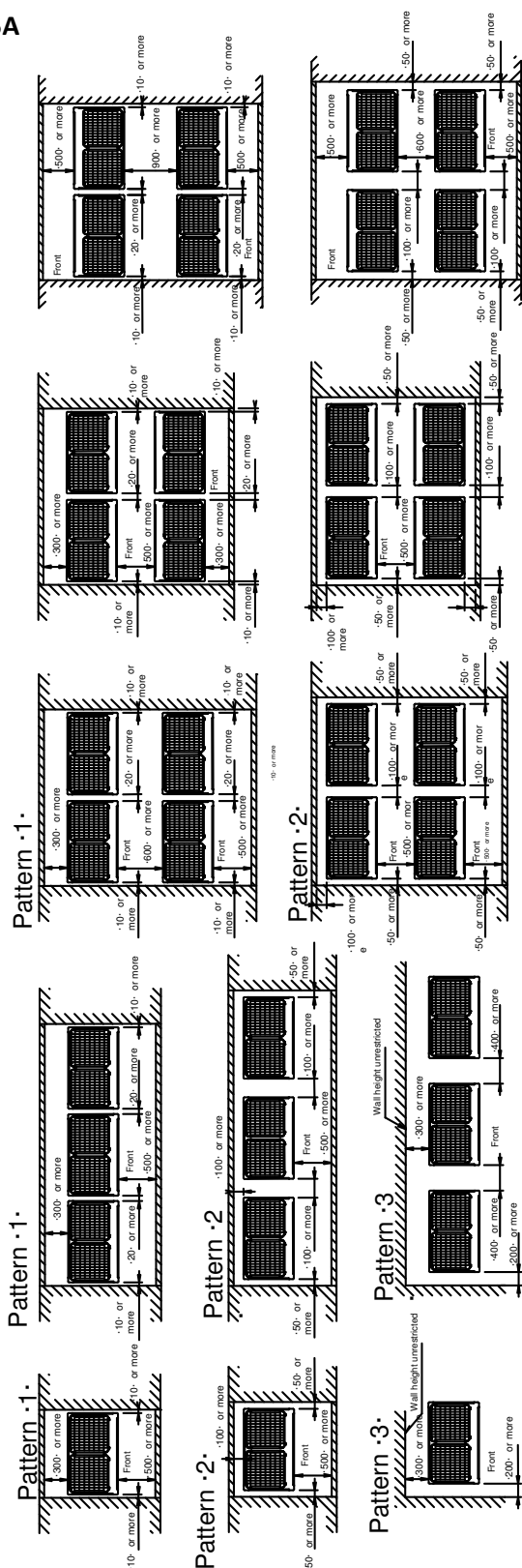
	Cooling	Heating
	Sound power [dBA]	Sound power [dBA]
5HP	81	84
8HP	81	84
10HP	81	84
12HP	81	84
14HP	83	85
16HP	87	89
18HP	87	89
20HP	88	90

Sound power is measured on a freestanding unit.
Actual sound is depending on the installation of the duct.

3D141183

12 - 1 Installation Method

For centralised group layout



Notes

1. Height of the walls in case of patterns · 1· and · 2·:

Front: ·1500·mm

Suction side: ·500·mm

Side: height unrestricted

The installation space shown on this drawing is based on cooling operation at +35.°C (outdoor temperature).

When the design outdoor ambient temperature exceeds 35°C or the load exceeds maximum ability of much generation load of heat in all outdoor unit, make sure the suction-side space is broader than the space shown on this drawing.

2. If the walls are higher than mentioned above, then additional service space is needed:

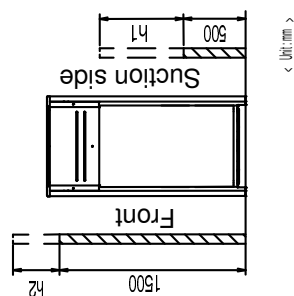
- suction side: service space + $h_{1/2}$
- front side: service space + $h_{2/2}$

33. When installing the units, select the pattern that best fits the available space.

Always keep in mind to leave sufficient space for a person to pass between unit and wall and or the air to circulate freely.

Provide sufficient space at the front to connect refrigerant piping (comfortably).

4. If more units are to be installed than are catered for in the above patterns, your layout should take into account of the possibility of short circuits.



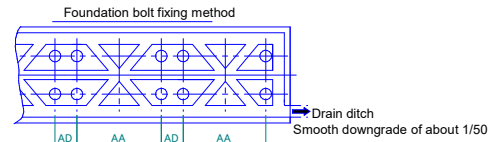
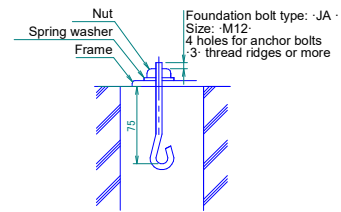
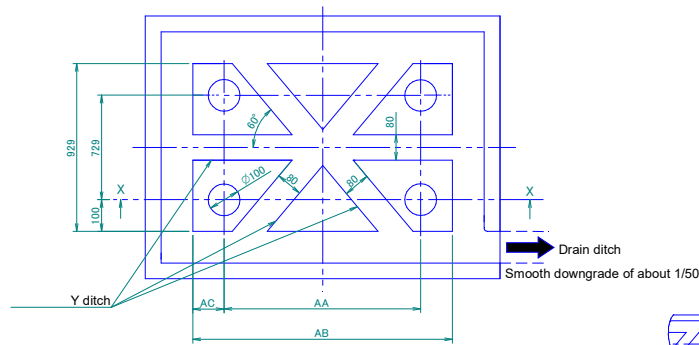
3D118467A

12 Installation

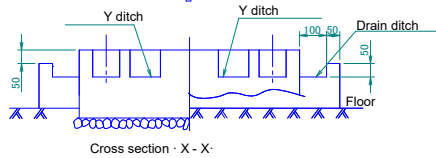
12 - 2 Fixation and Foundation of Units

12

REYA-A
REMA5A



When building a foundation on the ground → When building a foundation on a concrete floor



For multi-unit installation

Model	AA	AB	AC	AD
RYQ8-12U	766	992	113	185
RYM8-12U				
RXYQ8-12U				
RXYQ8-12U				
REMY8T/REYQ8-12U				
RXYQ8U	1076	1076	113	185
REMA5A/REYA8-12A				
RYMA5A/RXYA8-12A				
RYQ14-20U				
RYM14-20U				
RXY14-20U	1076	1076	113	185
RXYQ14-20U				
REY14-20U				
RXYT10-16U				
REYA14-20A				
RXYA14-20A				

Notes

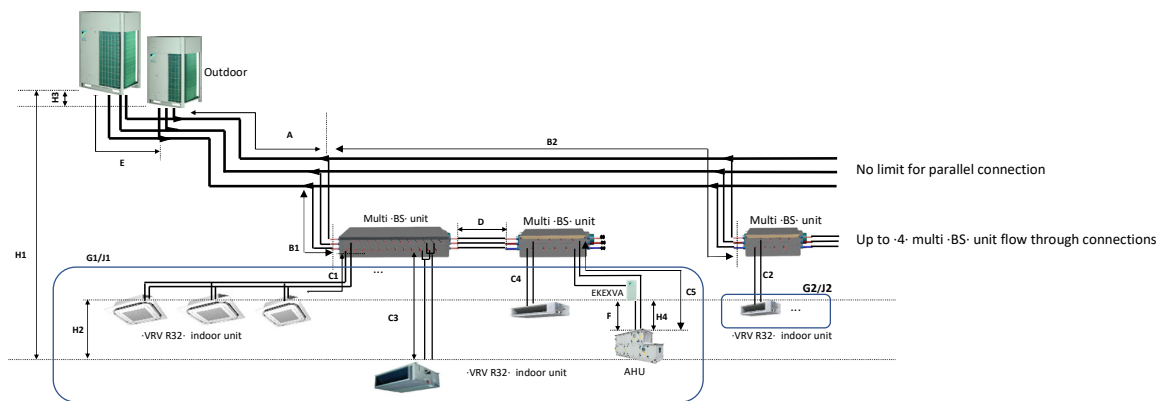
- 1 Provide a drain ditch around the foundation to drain water from the installation area.
- 2 The surface has to be finished with mortar. The corner edges have to be chamfered.
- 3 Build the foundation on a concrete floor or, if not possible, make sure the foundation surface has a rough finish.
- 4 Use a cement/sand/gravel ratio of 1/2/4 for the concrete, and a diameter of 10 mm for the reinforcement bars (approximately, 300mm intervals).
- 5 When installing the equipment on a roof, make sure to check the strength of the floor and take adequate water proofing measures.

3D118459B

12 Installation

12 - 3 Refrigerant Pipe Selection

REYA-A
REMA5A



4D141190A

RAYA-A
REMA5A

VRV5
Heat recovery
Piping restrictions

	Total				Allowed capacity	
	Capacity	Maximum indoor unit quantity	Maximum total downstream capacity — flow through connection -BS- unit	Maximum downstream number of ports — flow through connection -BS- unit	VRV indoor unit	Air handling unit (AHU)
		(*)1	[G1]; [G2]	[J1]; [J2]		
-VRV R32- indoor units only	50 ~ 130%	64	750	16	50 ~ 130%	-
AHU only (-EKEKVA + EKEACBVE-)	-	-	-	-	-	-
Pair (*)5	-	-	-	-	-	-
AHU only (-EKEKVA + EKEACBVE-)	-	-	-	-	-	-
Multi (*)5)(*)7	65/75 ^(*)3) ~ 110% ^(*)4)	64 ^(*)8)	750	16	-	65/75 ^(*)3) ~ 110% ^(*)4)
-VRV R32 DX- indoor unit + AHU(EKEKVA + EKEACBVE-)	50 ~ 110% ^(*)4)	64 ^(*)8)	750	16	50 ~ 110%	0 ~ 60% ^(*)4)
Mix (*)5)(*)7	-	-	-	-	-	-

Notes

- Excluding -BS- units
- Other combinations than mentioned in this combination table are prohibited. All units are to be connected to -BS- units
- 75% ~ 110%: default situation
-65% ~ 75%: Allowed if stricter AHU volume limitations are valid. Refer to the databook of -EKEACBVE- for details.
- Restrictions regarding the air handling unit capacity
- Pair AHU = system with 1 air handling unit connected to one outdoor unit system
Multi AHU = system with multiple air handling units connected to one outdoor unit system
Mixed AHU = mix of AHU units and -VRV- indoor units connected to one outdoor system
- Z,Z'-control is possible (the allowed number of [-EKEKVA + EKEACBVE- boxes] is determined by the connection ratio and the capacity of the outdoor unit.
- Z,Z'-control is possible (-EKEACBVE- boxes are allowed).
- EKEKVA- kits are also considered indoor units.

Amount of units connectable to a -BS- unit

	BS4A (*)9)	BS6A (*)9)	BS8A (*)9)	BS10A (*)9)	BS12A (*)9)	Multi -BS- per branch (*)9)	Multi -BS- when 2 branches are combined (*)9)
-VRV R32- indoor unit	Maximum -20- units	Maximum -30- units	Maximum -40- units	Maximum -50- units	Maximum -60- units	Maximum -5- units	Maximum -5- units
Air handling unit (AHU)	Maximum -400- class	Maximum -600- class	Maximum -750- class	Maximum -750- class	Maximum -750- class	Maximum -140- class	Maximum -250- class

Notes

- When combining -2- branches, the maximum piping length between the -BS- unit and the indoor unit is ≤ 20m. If the length of this piping is > 20m, increase the size of the liquid pipe.

VRV5
Heat recovery
Unit combination restrictions

Combination table	REYA5-28(*)2)
-VRV R32 DX- indoor unit	O
-EKVDX- (Option of -VAM- J8-)	O
-Cooling only- indoor unit	X
Hydrobox unit	X
AHU only (Pair (-EKEKVA + EKEACBVE-))	X
AHU only (Multi (-EKEKVA + EKEACBVE-))	O
-VRV R32 DX- indoor unit + AHU mix (-EKEKVA + EKEACBVE-)	O

O: Allowed
X: Not allowed

4D141190A

12 Installation

12 - 3 Refrigerant Pipe Selection

REYA-A REMA5A

VRV5 Heat recovery Piping restrictions		Maximum piping length			Maximum height difference			Total piping length Piping length
		Longest pipe from the outdoor unit or the last multi-outdoor piping branch Actual / Equivalent Maximum: $\{A+B1+C1, A+B2+C2, A+B1+C3, A+B1+D+C4, A+B1+D+C5\}$	Longest pipe after first branch or multi-BS unit Actual Maximum: $\{B1+C1, B2+C2, B1+C3, B1+D+C4, B1+D+C5\}$	Longest pipe from the outdoor unit to the last multi-outdoor piping branch Actual / Equivalent Maximum: (E)	Indoor-to-outdoor Outdoor unit higher than indoor unit / Indoor unit higher than outdoor unit Maximum: (H1)-	Indoor-to-indoor Maximum: (H2)-	Outdoor-to-outdoor Maximum: (H3)-	
Single outdoor units and standard multi-outdoor-unit combinations > 20hp	VRV DX R32 indoor unit	165/190 m ^(*)	40 m ^(*)	10/13 m	50/40 m ^(*)	15 m	5 m	1000 m
	AHU ^(*)	120/165 m ^(*)	40 m ^(*)		50/40 m ^(*)	30 m		
		165/190 m ^(*)	40 m		50/40 m	15 m		
Standard multi-outdoor-unit combinations < 20hp and free multi-outdoor-unit combinations	VRV DX R32 indoor unit	135/160 m ^(*)	40 m ^(*)	10/13 m	50/40 m ^(*)	15 m	5 m	500 m
	AHU ^(*)		40 m		50/40 m			

	Maximum piping length	Maximum height difference
	EKEXVA → AHU: (F)	EKEXVA → AHU: (H4)
AHU ^(*)	5 m	5 m

Notes

- If all conditions below are met, the limitation can be extended up to 90 m.
 - The piping length between all indoor units and the multi-BS unit is ≤ 40 m.
 - It is required to size up the liquid piping between the first branch kit or multi-BS unit and the last branch kit or last multi-BS unit. It is not required to size up the liquid piping between the multi-BS unit and indoor units. It is required to size up the liquid piping which is downstream of the multi-BS unit, if the last branch kit is located downstream of the multi-BS unit. If the increased pipe size is larger than the pipe size of the main pipe, also increase the size of the main pipe.
 - When the piping size is increased, the piping length has to be counted as double. The total piping length has to be within limitations.
 - The piping length difference between the nearest indoor unit to the outdoor unit and the farthest indoor unit to the outdoor unit is ≤ 40 m.
- If all conditions below are met, the limitation can be extended up to 90 m.
 - If the outdoor units are positioned higher than the indoor units:
 - 2.1.1 Minimum connection ratio: 80%
 - 2.1.2 Size up the liquid piping
 - 2.1.3 Outdoor unit setting
For more information, refer to the service manual.
 - If the outdoor units are positioned lower than the indoor units:
 - 2.2.1 Size up the liquid piping
 - 2.2.2 Outdoor unit setting
For more information, refer to the service manual.
- If the equivalent piping is > 90 m, size up the main liquid piping.
- Limit of 40 m piping length between multi-BS unit and indoor unit is depending upon room size (cfr. Safety system)
- Possible combinations
 - Multi-AHUs
 - Mix of DX units and AHUs

4D141190A

12 Installation

12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

12

Requirements for R32 units

To comply with the requirements of enhanced tightness refrigerating systems of the IEC 60335-2-40:2018, this system is equipped with shut-off valves in the ·BS· unit and an alarm in the remote controller.

The ·BS· unit is prearranged for a ventilated enclosure as countermeasure.

Outdoor unit installation

The outdoor unit has to be installed outside. For indoor installation of the outdoor unit, additional measures can be necessary to comply with the applicable legislation.

Indoor unit installation

The total amount of refrigerant in the system shall be less than or equal to the maximum allowed total refrigerant amount.

The maximum allowed total refrigerant amount depends on the area of the rooms being served by the system and the rooms in the lowest underground floor.

Note: The total refrigerant charge amount in the system MUST always be lower than $\cdot 15.96 \cdot [\text{kg}] \times$ the number of indoor units connected downstream of ·BS· units, with a maximum of $\cdot 63.8 \cdot \text{kg}.$

When the R32 sensor in the indoor unit detects a refrigerant leak, the corresponding shut-off valves in the ·BS· unit close and the alarm in the remote controller connected to the indoor unit is triggered.

Follow the flowchart. Details are described in the manual of the outdoor unit.

Note: The total refrigerant charge amount in the system MUST always be lower than $\cdot 15.96 \cdot [\text{kg}] \times$ the number of indoor units connected downstream of ·BS· units, with a maximum of $\cdot 63.8 \cdot \text{kg}.$

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12 Installation

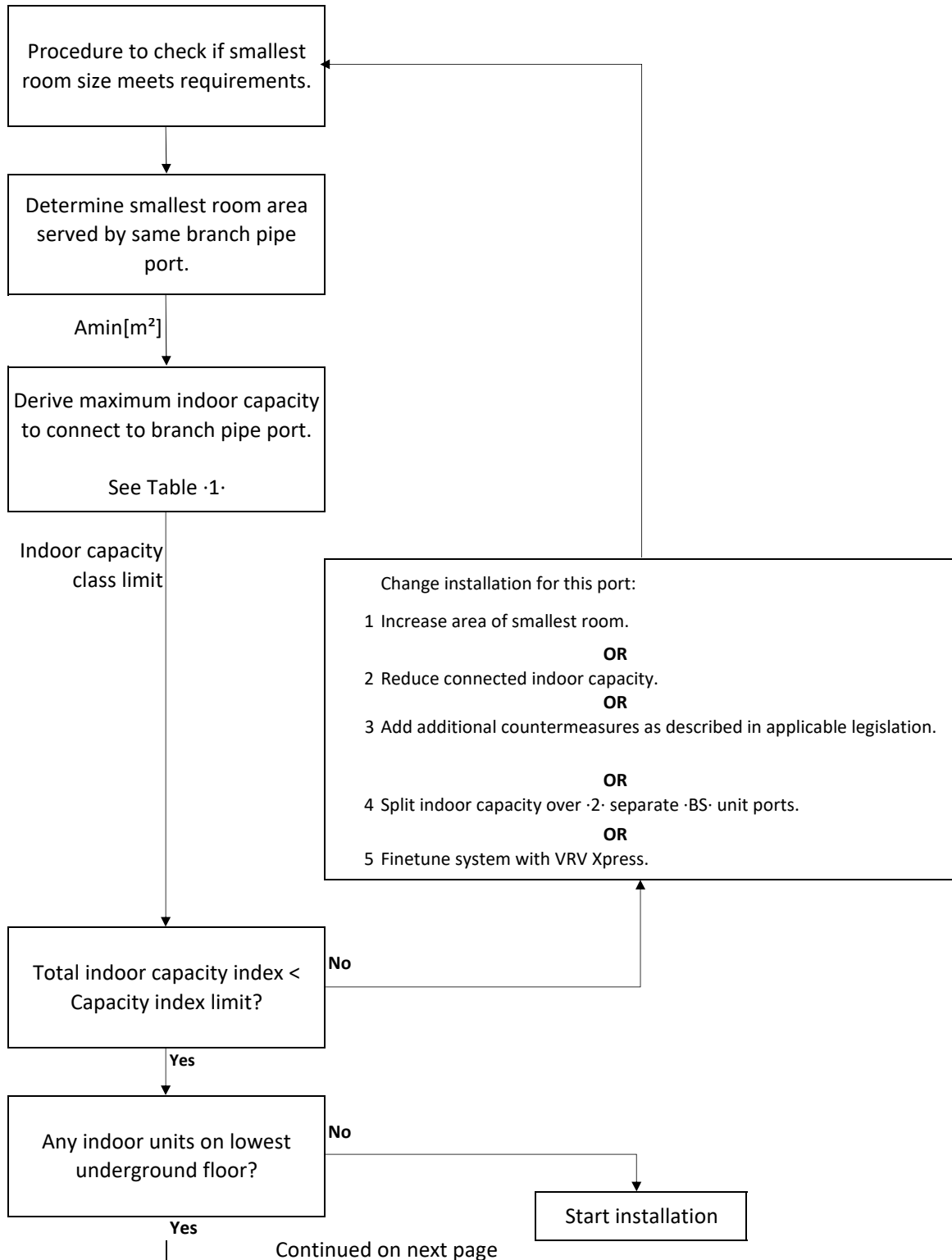
12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

12

Indoor unit installation

Flowchart (for EACH ·BS· unit branch pipe port)



4D141154A

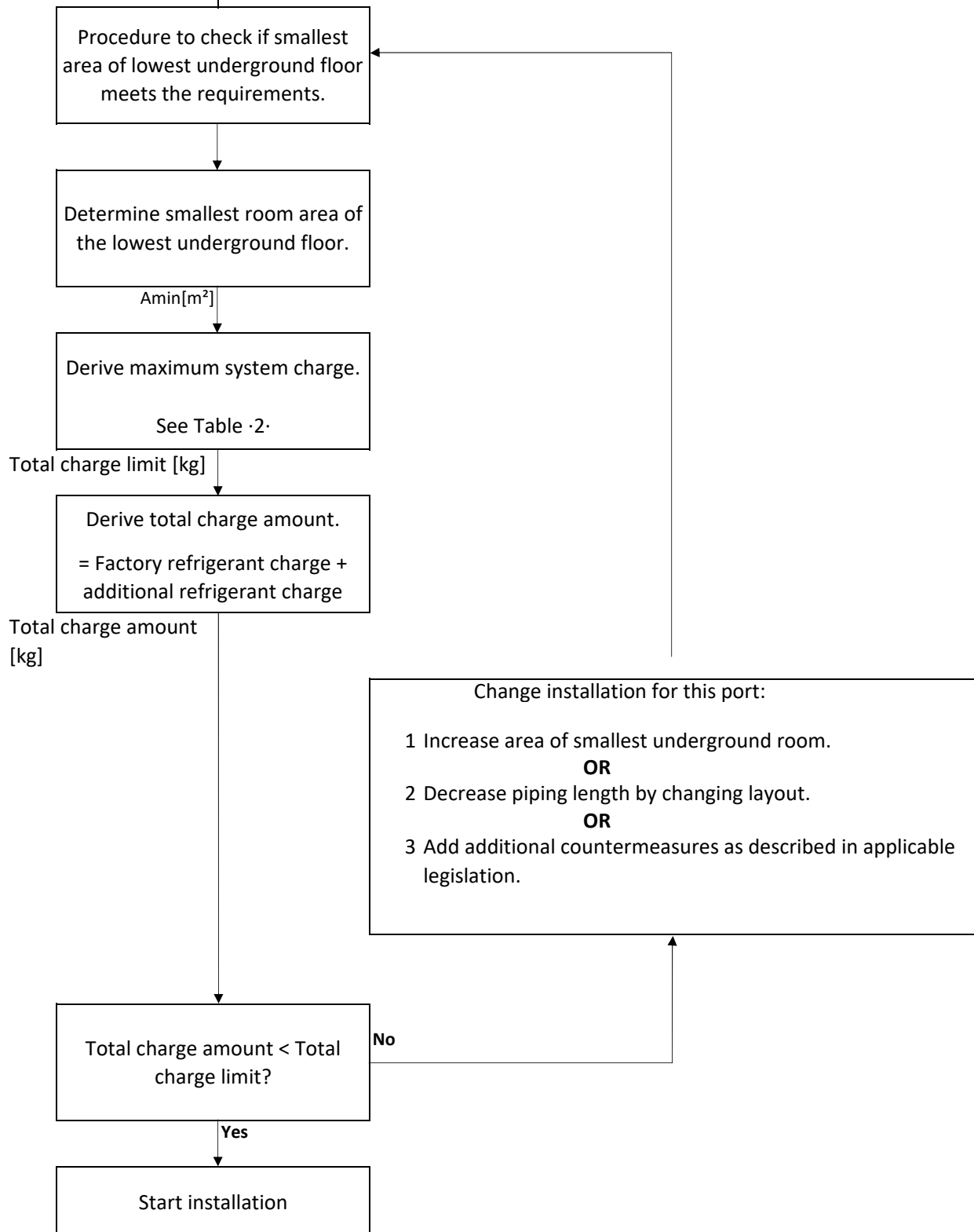
12 Installation

12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

Indoor unit installation

Continued from previous page



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12 Installation

12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

Indoor unit installation

Table ·1·

Room area [m ²]	Maximum total indoor unit capacity class		
	1 indoor unit per branch pipe port (·a·, d·)	·2·5· units per branch pipe port	
		·40· m after first branch (·b·)	·90· m after first branch (·c·)
≤6	-	-	-
7	10	-	-
8	15	-	-
9	32	-	-
10	32	-	-
11	40	-	-
12	40	-	-
13	71	-	-
14	80	-	-
15	80	-	-
20	80	32	-
25	140	40	25
30	200	63	50
35	200	71	71
40	250	100	100
≥45	250	140	140

(a) 1 indoor unit connected to a single branch pipe port.

(b) ·2· to ·5· indoor units connected to a single branch pipe port, ·40· m after first refrigerant branch.

(c) ·2· to ·5· indoor units connected to a single branch pipe port, ·90· m after first refrigerant branch.

(d) In case the indoor unit capacity class exceeds ·140·, two branch ports need to be combined. Refer to the installation manual for more details.

Note: The values in Table ·1· are under the assumption of worst case indoor unit volume and ·40· m piping between indoor and ·BS· unit.

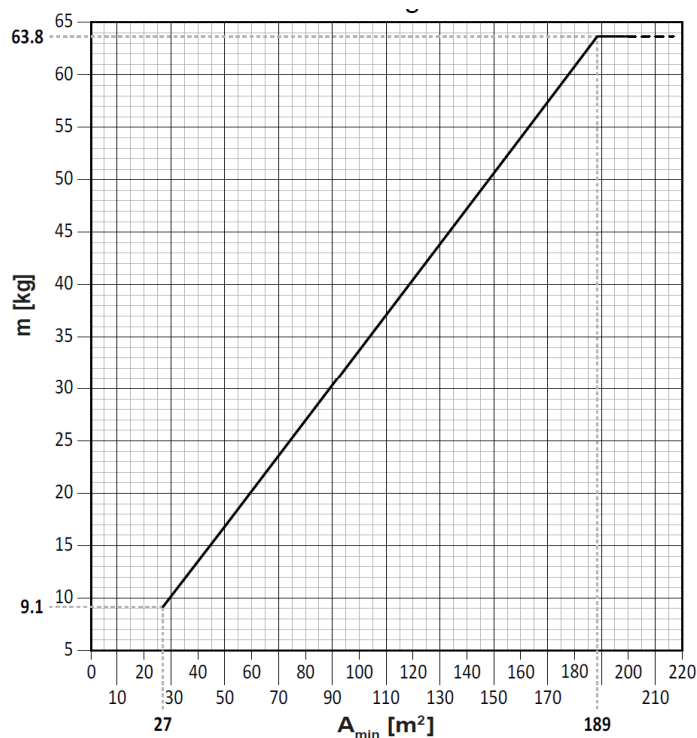
In VRV Xpress (<https://vrvxpress.daikin.eu/>) it is possible to add custom piping lengths and indoor units, which can lead to lower minimum room area requirements.

4D141154A

REYA-A
REMA5A

Table ·2·

Lowest underground floor (·a·)



A _{min} (m ²)	m (kg)
27	9.1
30	10.1
40	13.5
50	16.8
60	20.2
70	23.6
80	27.0
90	30.3
100	33.7
110	37.1
120	40.5
130	43.9
140	47.2
150	50.6
160	54.0
170	57.4
180	60.7
189	63.8
190	63.8
200	63.8

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12 Installation

12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

•BS• unit installation

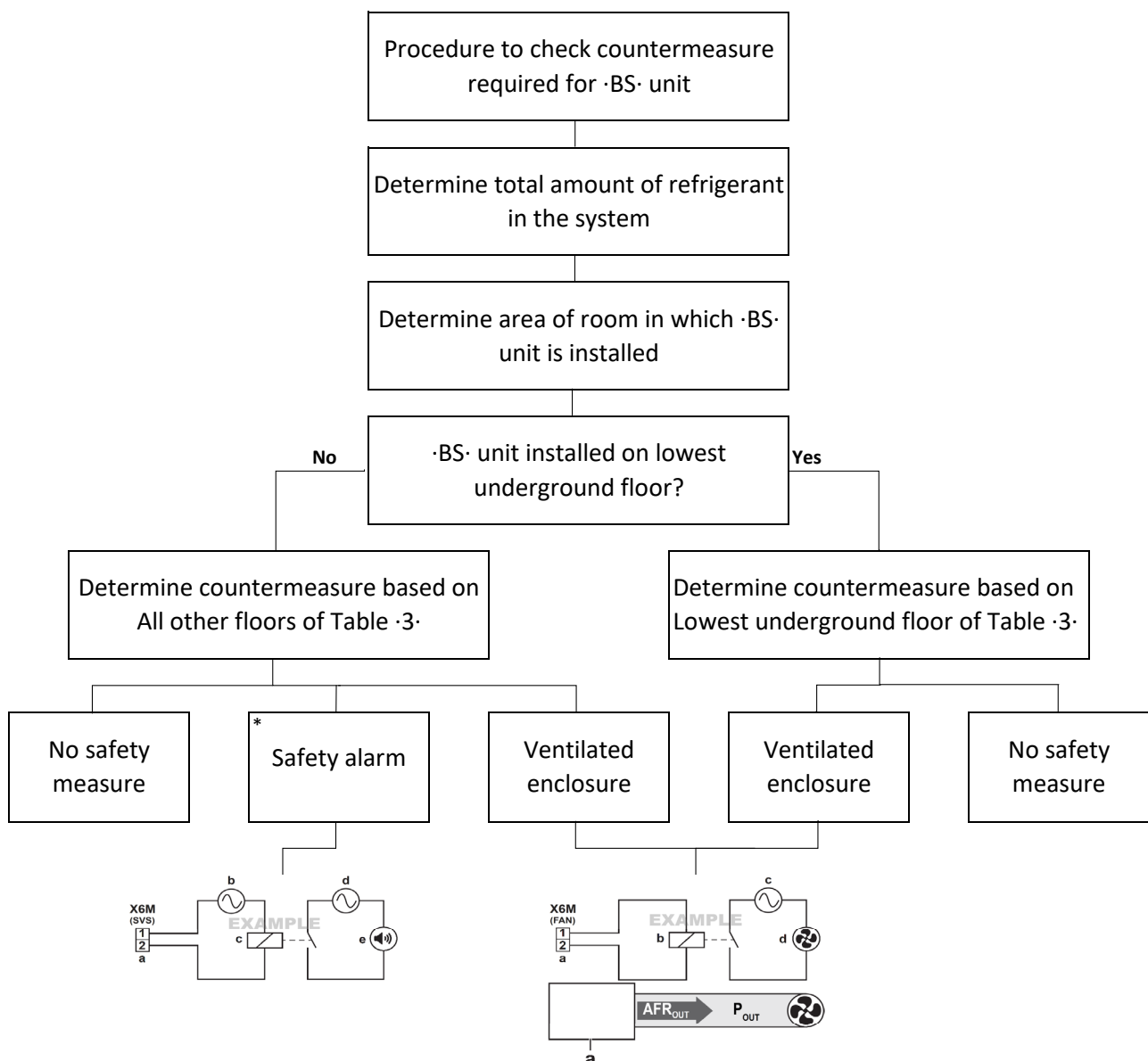
Depending on the room size in which the •BS• unit is installed and the total amount of refrigerant in the system, different safety measures can be applied.

Follow the flowchart. Details are described in the manual of •BS• unit.

Note: If the installation height is more than 2.2 m, different boundaries for the applicable safety measures can apply.

To know which safety measure is required in case the installation height is more than 2.2 m, refer to VRV Xpress (<https://vrvxpress.daikin.eu/>).

12



* Do NOT use the external safety alarm if the •BS• unit is installed in an occupied space where people are restricted in their movement.

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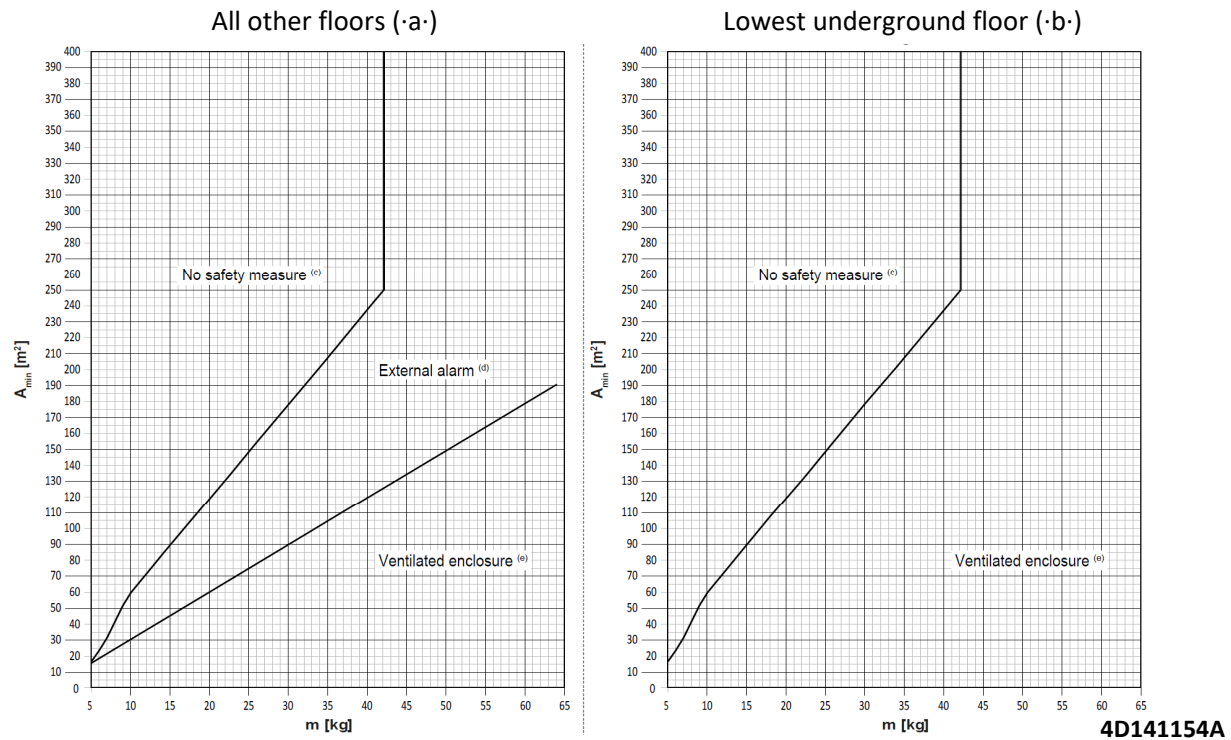
12 Installation

12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

•BS• unit installation

Table •3•



REYA-A
REMA5A

•BS• unit installation

m [kg]	Amin [m²]			m [kg]	Amin [m²]		
	All other floors (-a-)		Lowest underground floor (-b-)		All other floors (-a-)		Lowest underground floor (-b-)
	No safety measure (-c-)	External alarm (-d-)	No safety measure (-c-)		No safety measure (-c-)	External alarm (-d-)	No safety measure (-c-)
5	16	15	16	35	207	104	207
6	23	18	23	36	213	107	213
7	31	21	31	37	219	110	219
8	41	24	41	38	225	113	225
9	51	27	51	39	231	115	231
10	59	30	59	40	237	118	237
11	65	33	65	41	243	121	243
12	71	36	71	42	249	124	249
13	77	38	77	43	-	127	-
14	83	41	83	44	-	130	-
15	89	44	89	45	-	133	-
16	95	47	95	46	-	136	-
17	101	50	101	47	-	139	-
18	107	53	107	48	-	142	-
19	113	56	113	49	-	145	-
20	118	59	118	50	-	148	-
21	124	62	124	51	-	151	-
22	130	65	130	52	-	154	-
23	136	68	136	53	-	157	-
24	142	71	142	54	-	160	-
25	148	74	148	55	-	163	-
26	154	77	154	56	-	166	-
27	160	80	160	57	-	169	-
28	166	83	166	58	-	172	-
29	172	86	172	59	-	175	-
30	178	89	178	60	-	178	-
31	184	92	184	61	-	181	-
32	190	95	190	62	-	184	-
33	195	98	195	63	-	187	-
34	201	101	201	64	-	190	-

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12 Installation

12 - 4 Refrigerant Charge Information

REYA-A

REMA5A

·BS· unit installation

When the R32 sensor in the ·BS· unit detects a refrigerant leak, it will activate the safety measures.

Safety alarm

An external alarm circuit (field supply) must be connected to the SVS output of the ·BS· unit.

When the R32 sensor in the ·BS· unit detects a refrigerant leak, the SVS output closes and activates the alarm. An error message is displayed on the remote controllers of the connected indoor units.

- This alarm system must warn audibly AND visibly (e.g. a loud buzzer AND a flashing light). The audible alarm must be ·15· dBA above the background sound level at all times.
- At least one alarm must be installed in the occupied space in which the ·BS· unit is installed.
- For the occupancy listed below, the alarm system must additionally warn at a supervised location with 24-hour monitoring. To warn at a supervised location, connect a supervisor remote controller (e.g. ·BRC1H52*·) to the system
 - with sleeping facilities.
 - where an uncontrolled number of people are present.
 - accessible for persons not familiar with the necessary safety precautions.
- Do NOT use the external safety alarm if the ·BS· unit is installed in an occupied space where people are restricted in their movement.

For details, see the manual of the ·BS· unit.

Ventilated enclosure

For the ventilated enclosure safety measure, ductwork and an extraction fan are installed.

When the R32 sensor in the ·BS· unit detects a refrigerant leak, it will activate the safety measures.

This includes:

- opening the damper of the unit to allow air to enter and evacuate the refrigerant leak.
- activating the fan output signal to trigger an extraction fan to operate.
- displaying an error message on the remote controllers of the connected indoor units.

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·BS· unit installation

The information in the table below must be taken into account in case a ventilated enclosure is used as a safety measure.

Ductwork	The evacuation ductwork MUST vent outside the building. Avoid that dirt and small animals can enter the ductwork and lead to an obstruction. Example: install a non-return valve, grille, filter or other component in the evacuation duct.
Extraction fan	The extraction fan must have a CE marking and cannot act as an ignition source during normal operation. Example: Brushed DC motors can cause sparks and are not allowed. Fan power must be lower than ·2.5· kVA.
Replacement air	Make sure that sufficient air is available for the extraction of a refrigerant leak. The extraction airflow rate must be maintained for at least ·6.5· hours. This is achieved by providing a sufficiently large air volume around the ·BS· unit, or by providing sufficient replacement air around the ·BS· unit (e.g. natural openings or a dedicated opening in the false ceiling).
Maintenance	A periodic inspection of the unit is required, where the test run is repeated. Maintain the evacuation channel to avoid dust and dirt from building up and obstructing the flow path.

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12 Installation

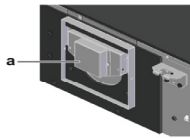
12 - 4 Refrigerant Charge Information

REYA-A
REMA5A

•BS• unit installation

A damper at the air inlet of the •BS• unit enables a choice between 3 types of configurations (see below).

The damper opens when a refrigerant leak has been detected in the •BS• unit. This creates an airflow path from the leaking •BS• unit to the extraction fan.



a Damper

When a ventilated enclosure is required, the following requirements apply.

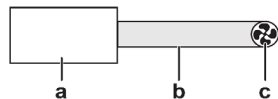
- Pressure inside the •BS• unit has to be more than 20 Pa below the ambient pressure.
- Minimum airflow rate

Model	Minimum airflow rate [m³/h]
BS4A	90
BS6-8A	87
BS10-12A	77

External fan needs to be selected in order to meet these requirements. The available calculation method depends on the configuration.

Possible configurations

One •BS• unit – one extraction fan



- a BS unit
- b Ductwork
- c Extraction fan

Calculation method for selection of external fan

- Manual calculation: see •BS• unit manual for details
- VRV Xpress: see <https://vrvxpress.daikin.eu/>

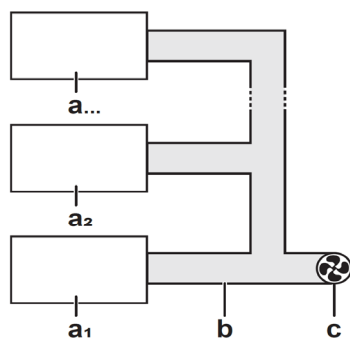
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•BS• unit installation

Multiple •BS• units in parallel – one extraction fan

- VRV Xpress: see <https://vrvxpress.daikin.eu/>



- a_# BS unit #
- b Ductwork
- c Extraction fan

Multiple •BS• units in series – one extraction fan

- VRV Xpress: see <https://vrvxpress.daikin.eu/>



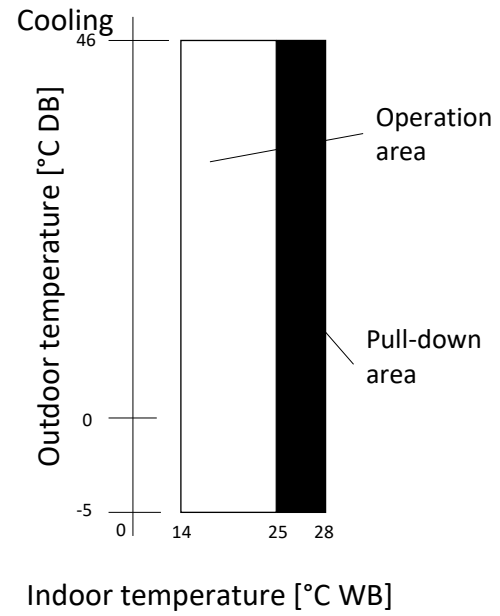
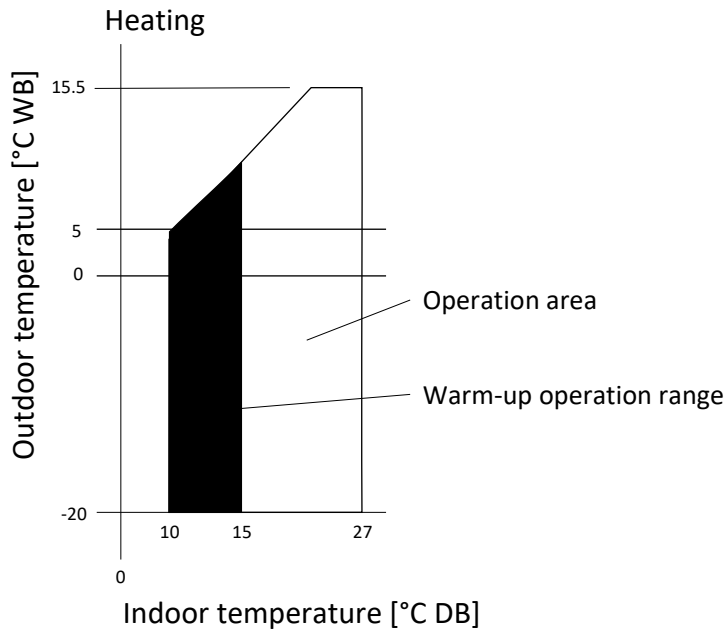
- a BS unit
- b Ductwork
- c EKBSDCK
- d Extraction fan

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13 Operation range

13 - 1 Operation Range

REYA-A
REMA5A



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14 Appropriate Indoors

14 - 1 Appropriate Indoors

REYA-A
REMA5A

Recommended indoor units for ·REYA*A* + REMA5A*· outdoor units

· HP	8	10	12	13	14	16	18	20
	4xFXSA50	4xFXSA63	6xFXSA50	3xFXSA50 3xFXSA63	1xFXSA50 5xFXSA63	4xFXSA63 2xFXSA80	3xFXSA50 5xFXSA63	8xFXSA63

For multi outdoor units ·>16HP·, the recommended amount of indoor units is the sum of the indoor units defined for a single outdoor unit.
For details about the allowed combinations, see the engineering databook.

Appropriate indoor units for ·REYA*A* + REMA5A*· outdoor units

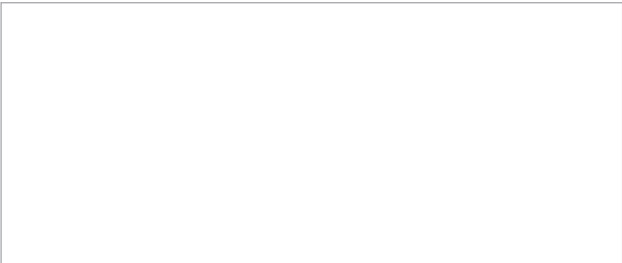
Covered by ·ENER LOT21·

FXFA20-25-32-40-50-63-80-100-125
FXZA15-20-25-32-40-50
FXSA15-20-25-32-40-50-63-80-100-125-140
FXDA10-15-20-25-32-40-50-63
FXAA15-20-25-32-40-50-63
FXMA50-63-80-100-125-200-250
FXHA32-50-63-100
FXUA50-71-100

Outside the scope of ·ENER LOT21·

EKVDX32-50-80-100
EKEXVA50-63-80-100-125-140-200-250-300-350-400-450-500 + EKEACBVE
CYAS100*80, CYAS150*80, CYAS200*100, CYAS250*140
CYAM100*80, CYAM150*80, CYAM200*100, CYAM250*140
CYAL100*125, CYAL150*200, CYAL200*250, CYAL250*250

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